

Figure 1

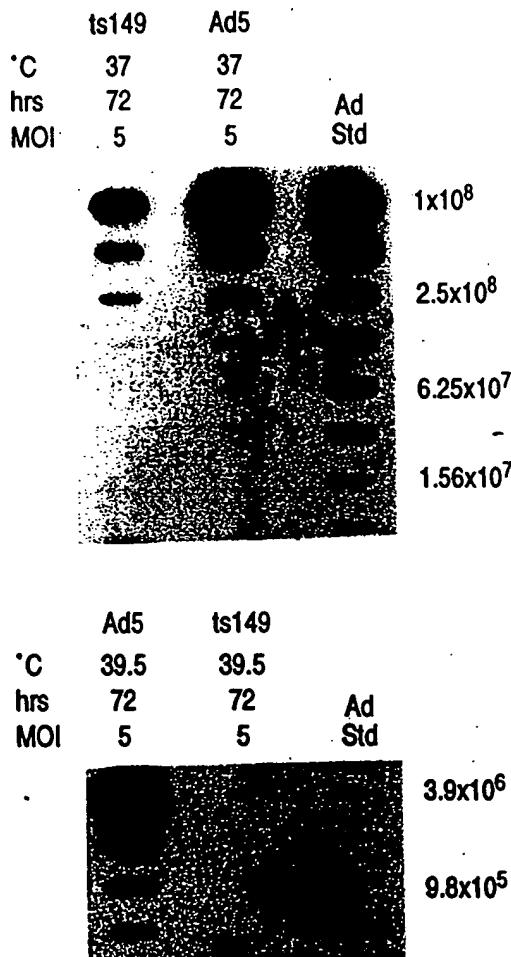


Figure 2

ts149	Ad5	ts149	'C
39.5	37	39.5	hrs
72	72	96	
5	5	5	MOI
10	20	40	



Figure 3

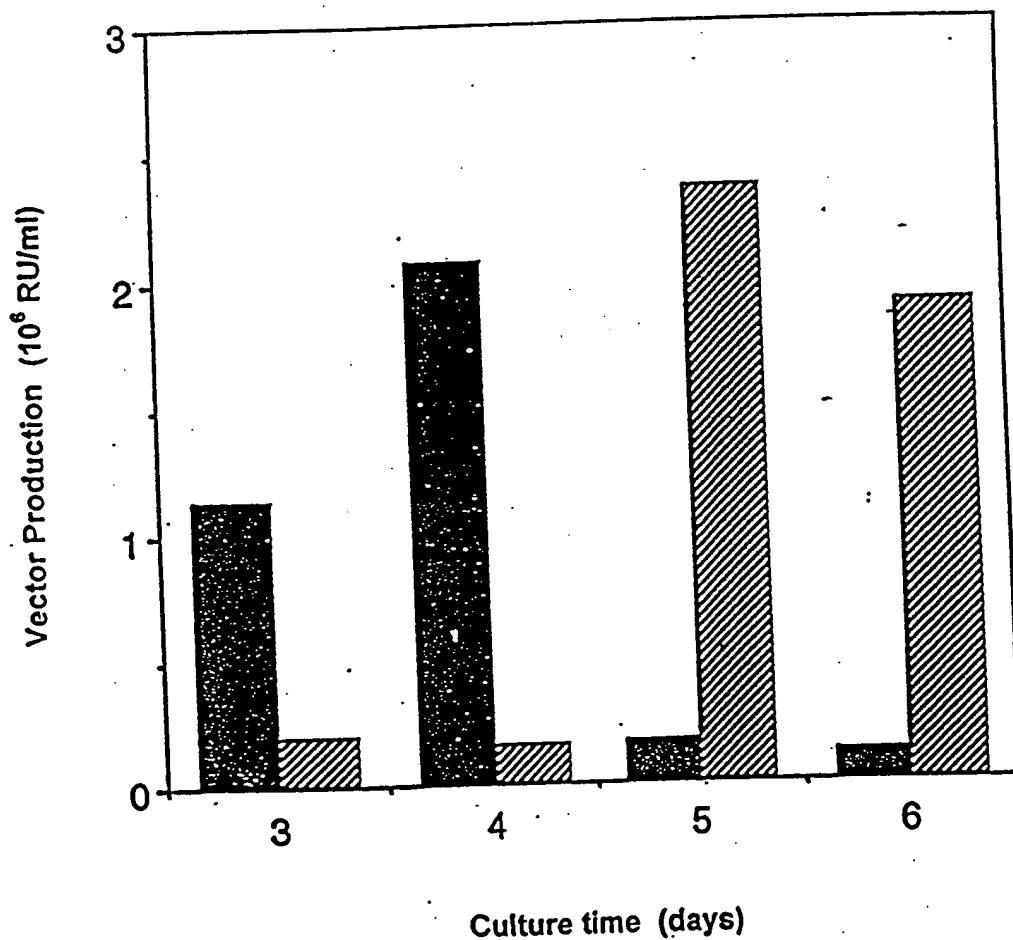


Figure 4

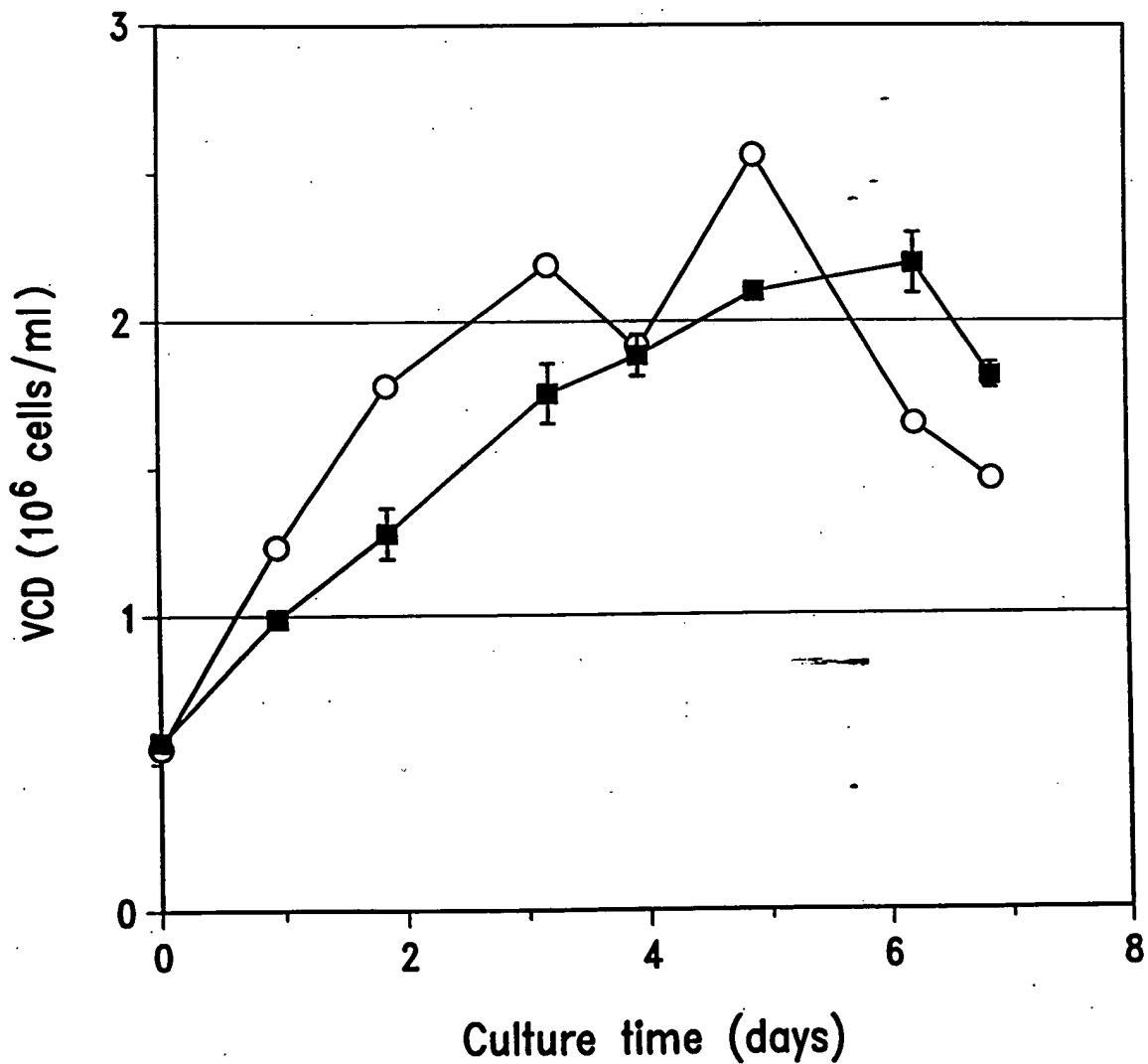


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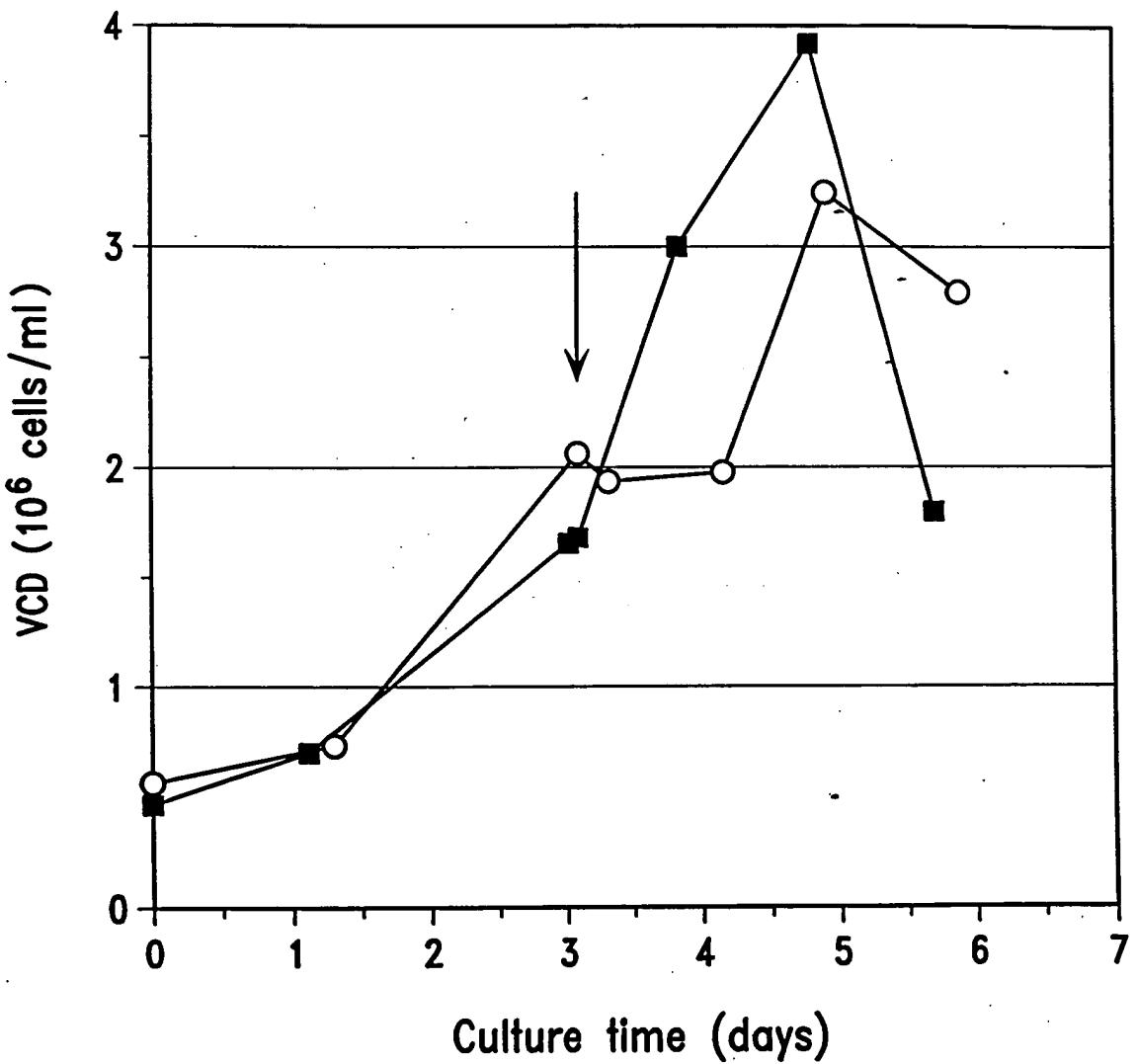


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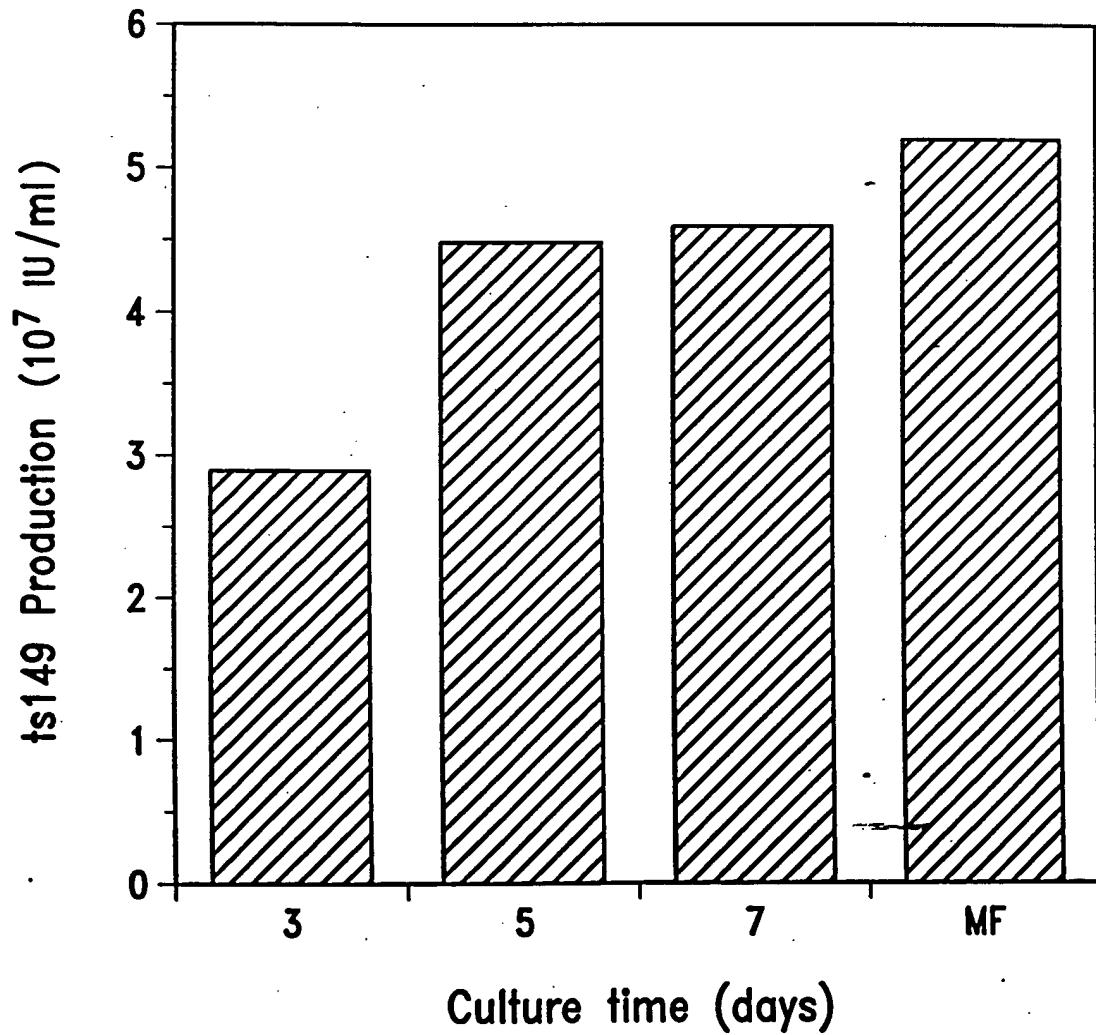


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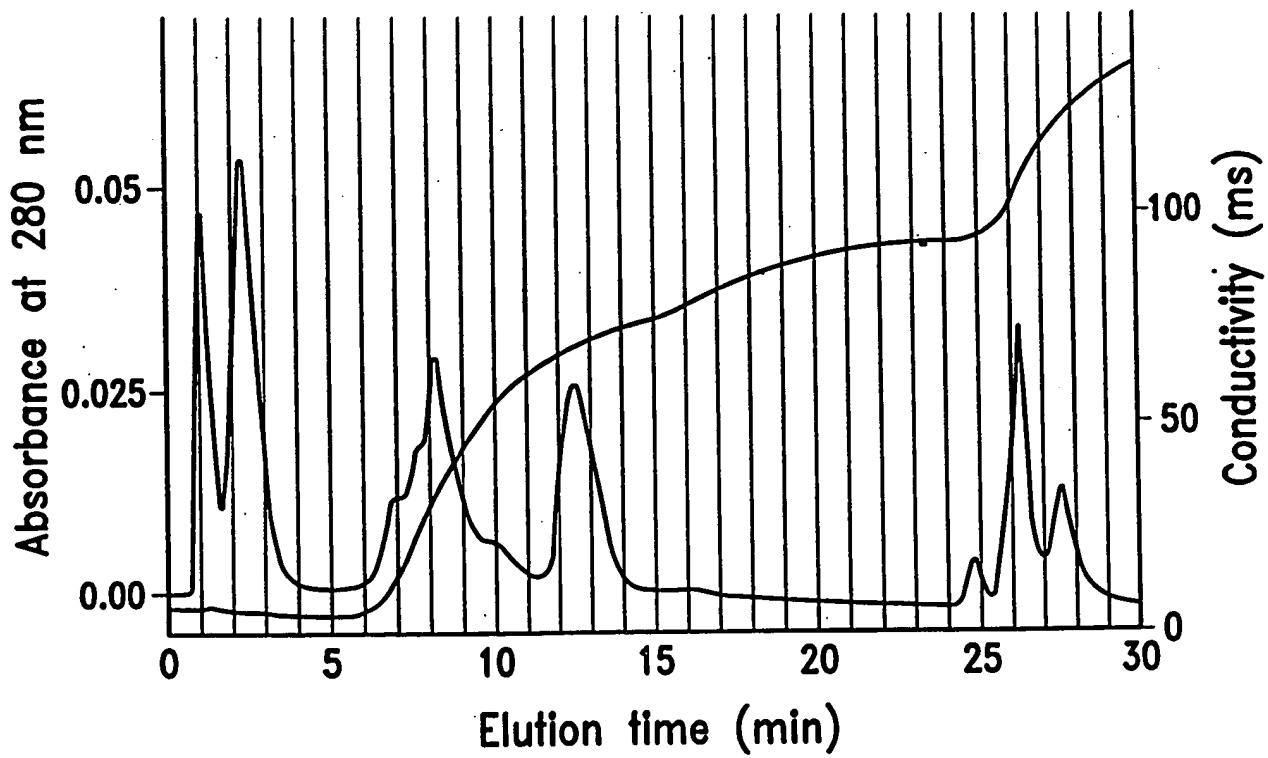
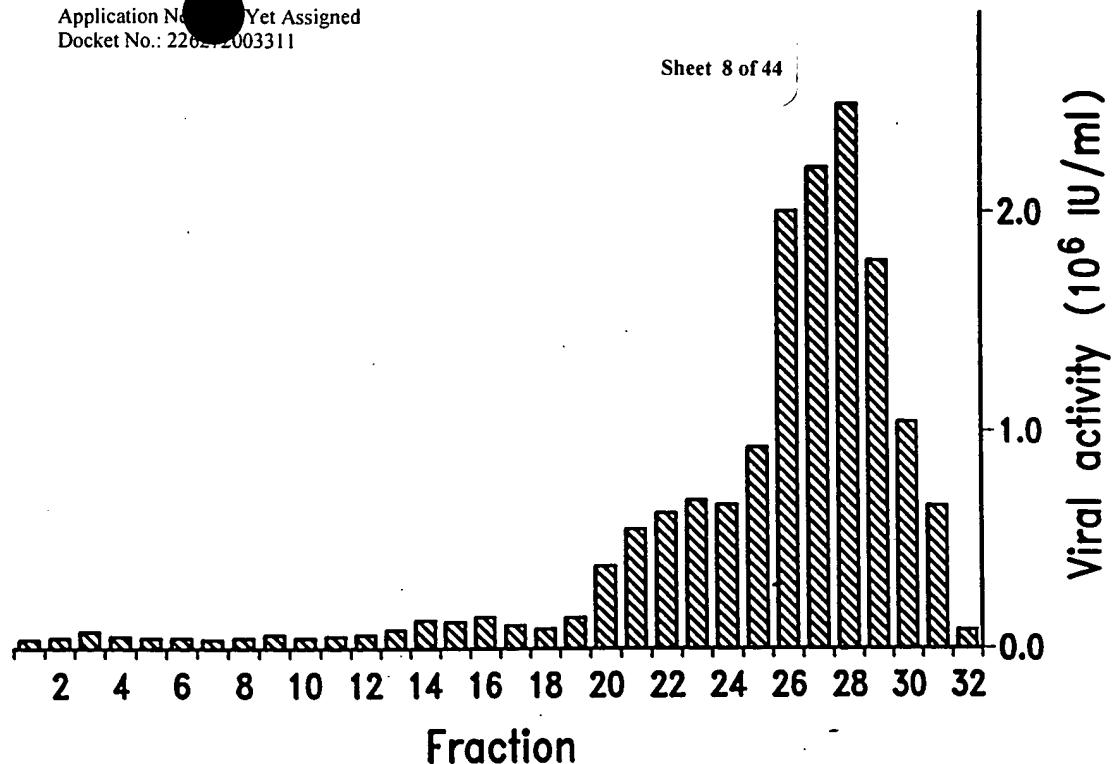


Figure 8

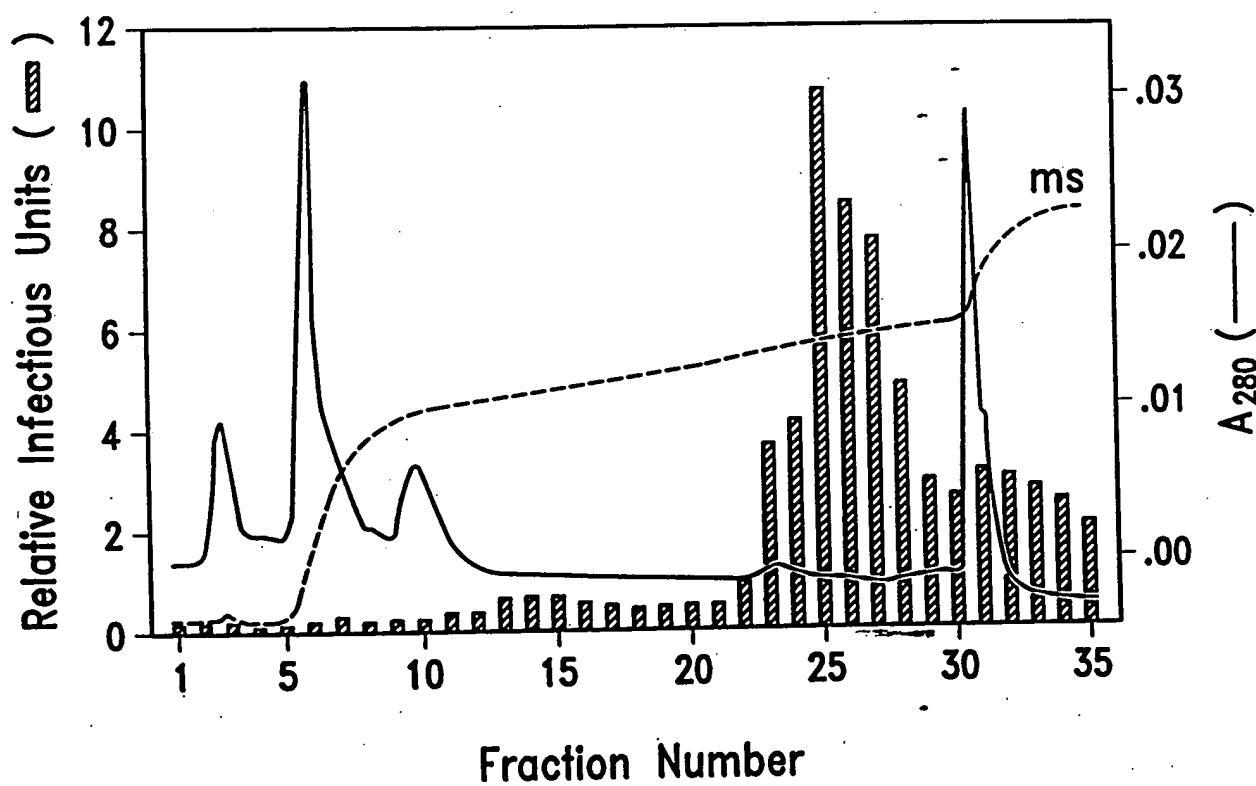


Figure 9

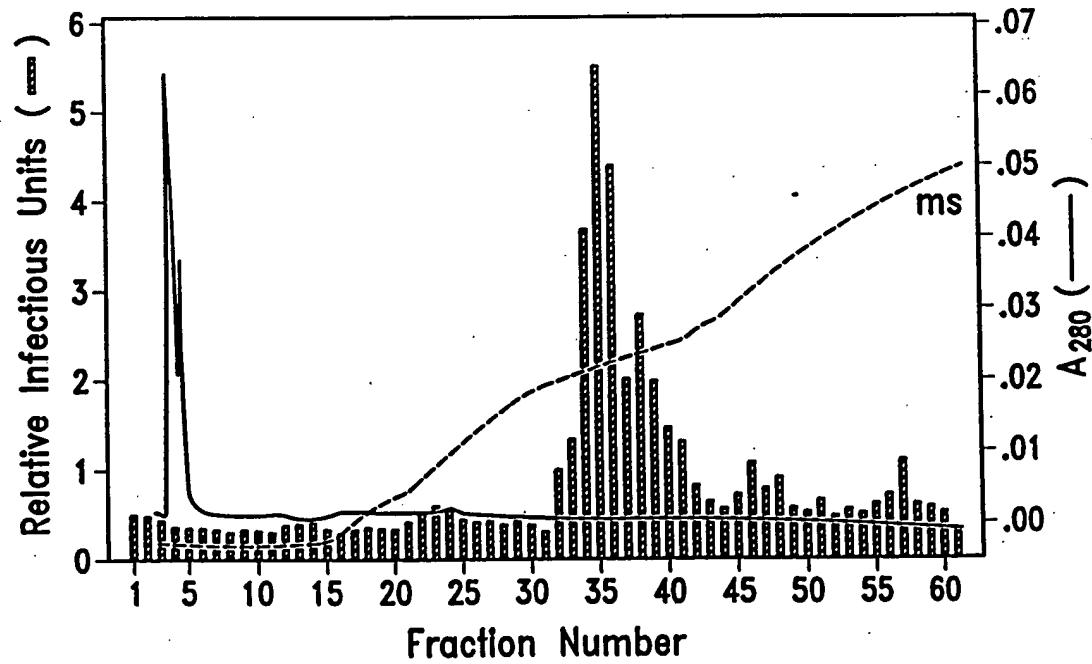
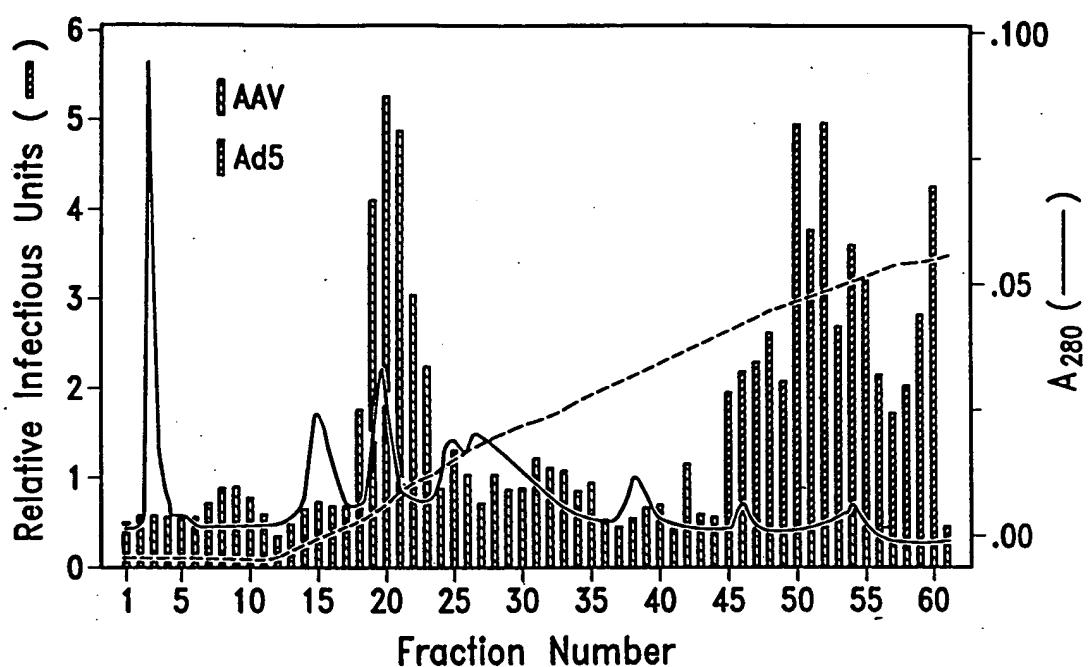


Figure 10

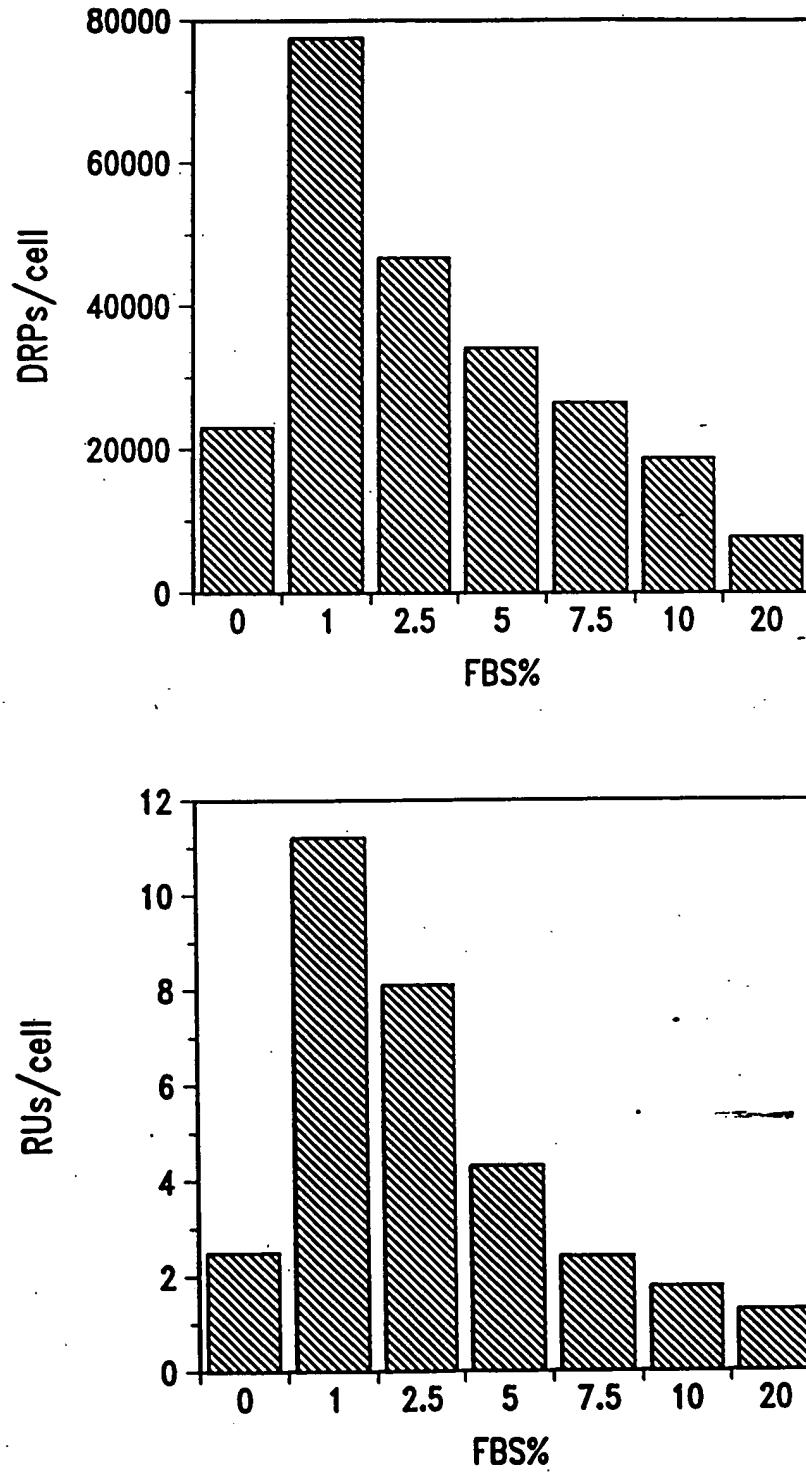


Figure 11

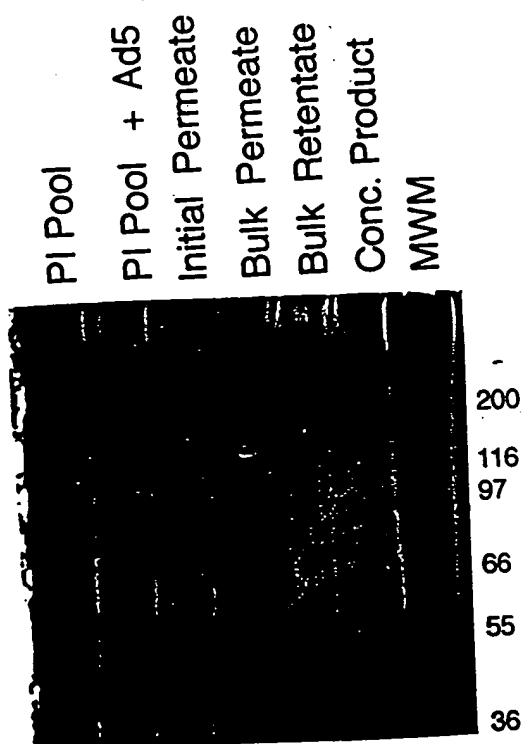


Figure 12

52471c2.bio - 2000.0 μ l 1:AAV FILTR

RECORDED BY COMPUTER

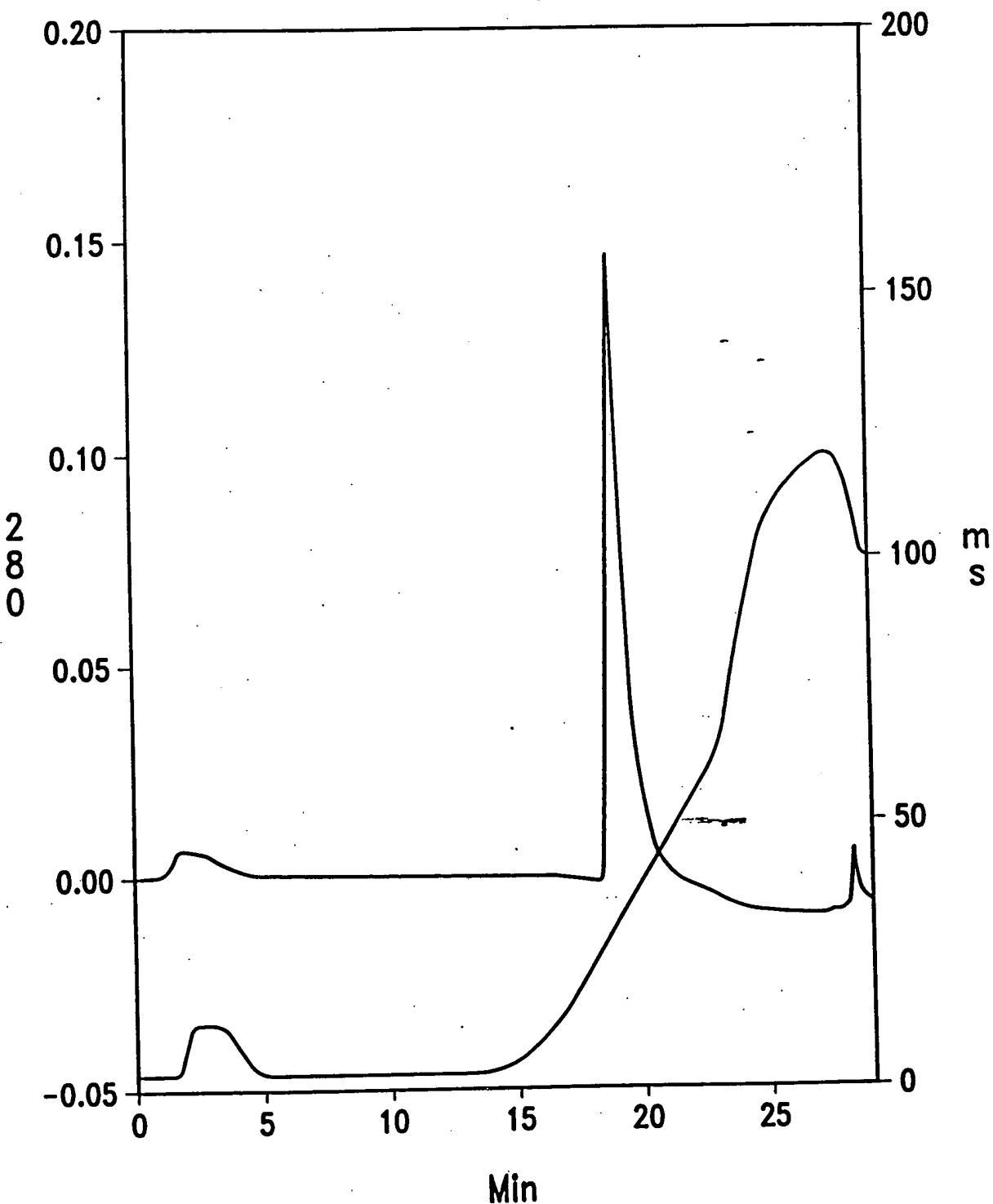
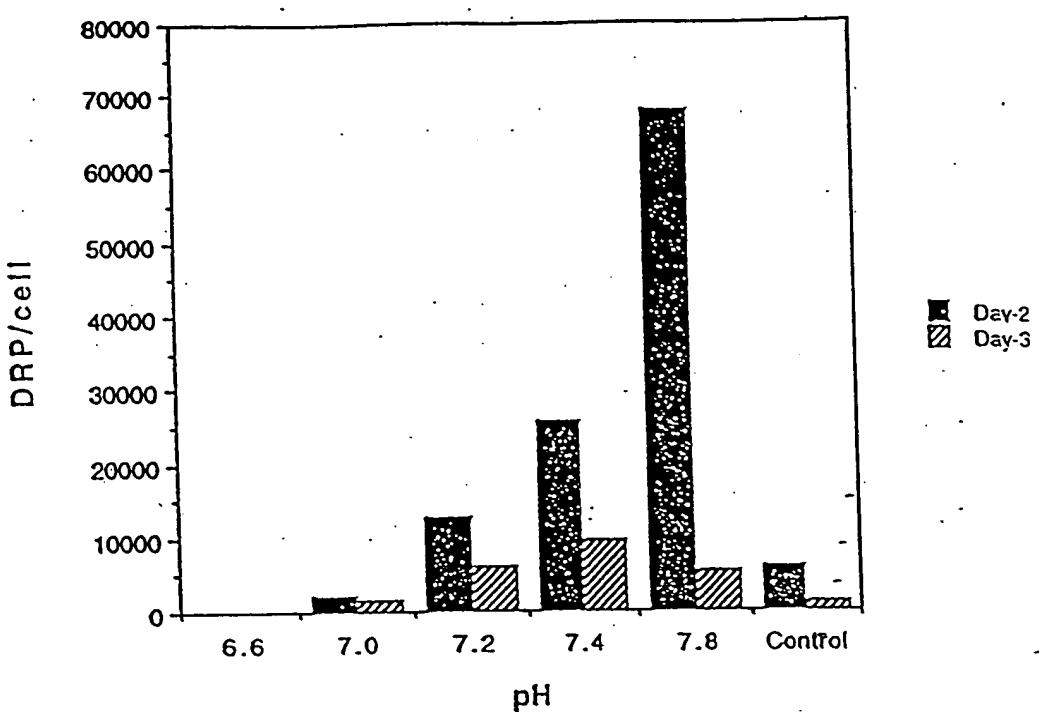


Figure 13

A

pH Experiment #1
DRP Production at different pH's



B

pH Experiment #2
DRP/cell at different pH's

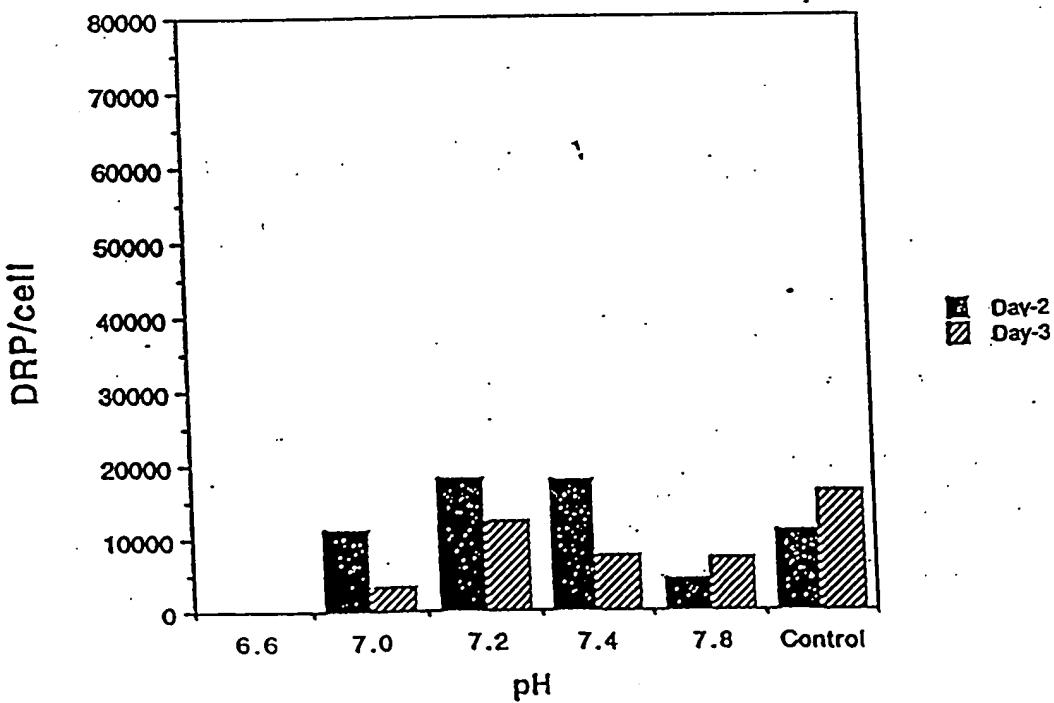
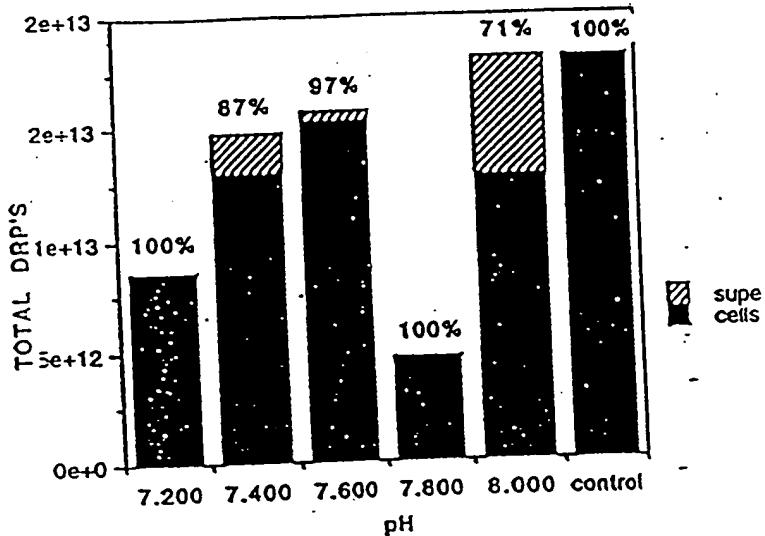


Figure 14

A

CFTR JL-14 REACTOR pH EXPERIMENT #3
DISTRIBUTION OF VECTOR IN CELLS/SUPE
TOTAL CULTURE DRP'S DAY 2



B

CFTR JL-14 REACTOR pH EXPERIMENT #3
DISTRIBUTION OF VECTOR IN CELLS/SUPE
TOTAL CULTURE DRP'S DAY 3

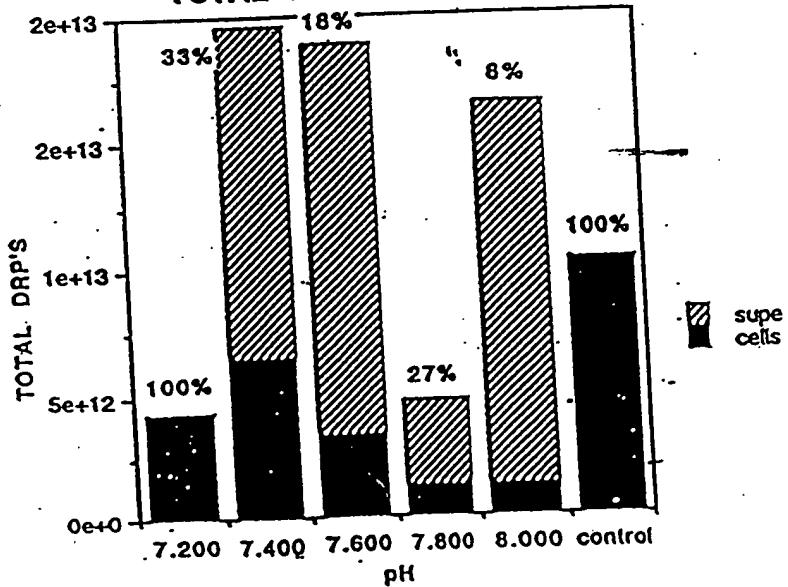
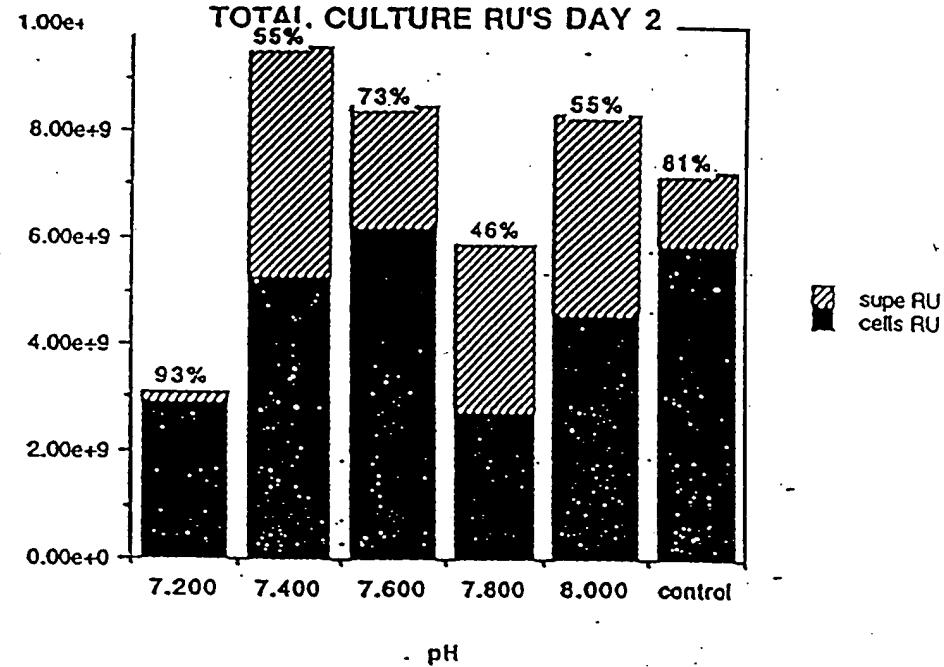


Figure 15

A

CFTR JL-14 REACTOR pH EXPERIMENT #3
DISTRIBUTION OF VECTOR IN CELLS/SUPE



pH

B

CFTR JL-14 REACTOR pH EXPERIMENT #3
DISTRIBUTION OF VECTOR IN CELLS/SUPE

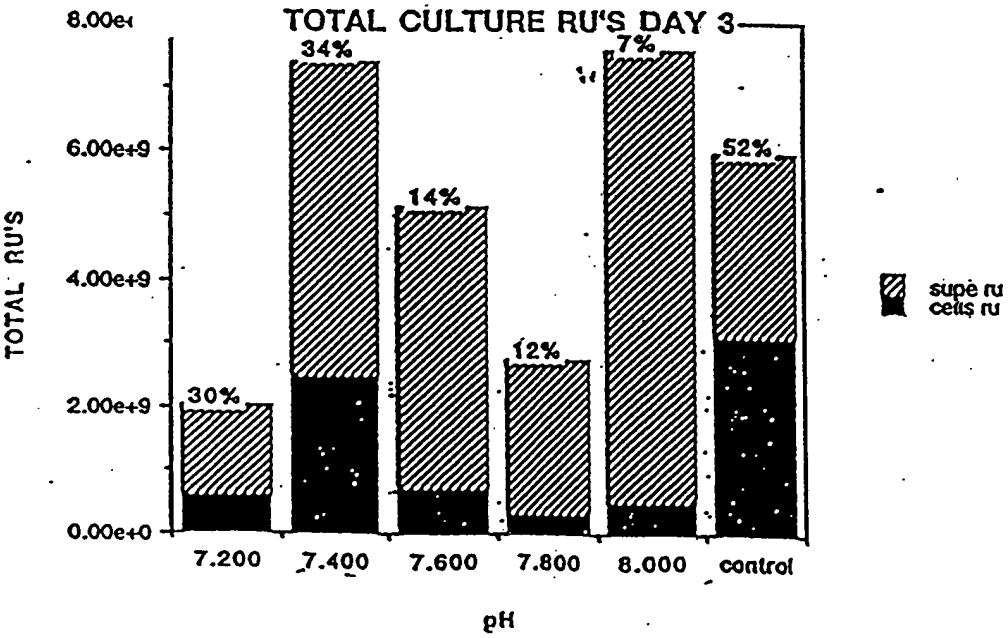


Figure 16

CFTR JL-14 REACTOR pH EXPERIMENT #3
DAY 3 PARTICLE TO INFECTIVITY
SUPERNATANT AND CELLS

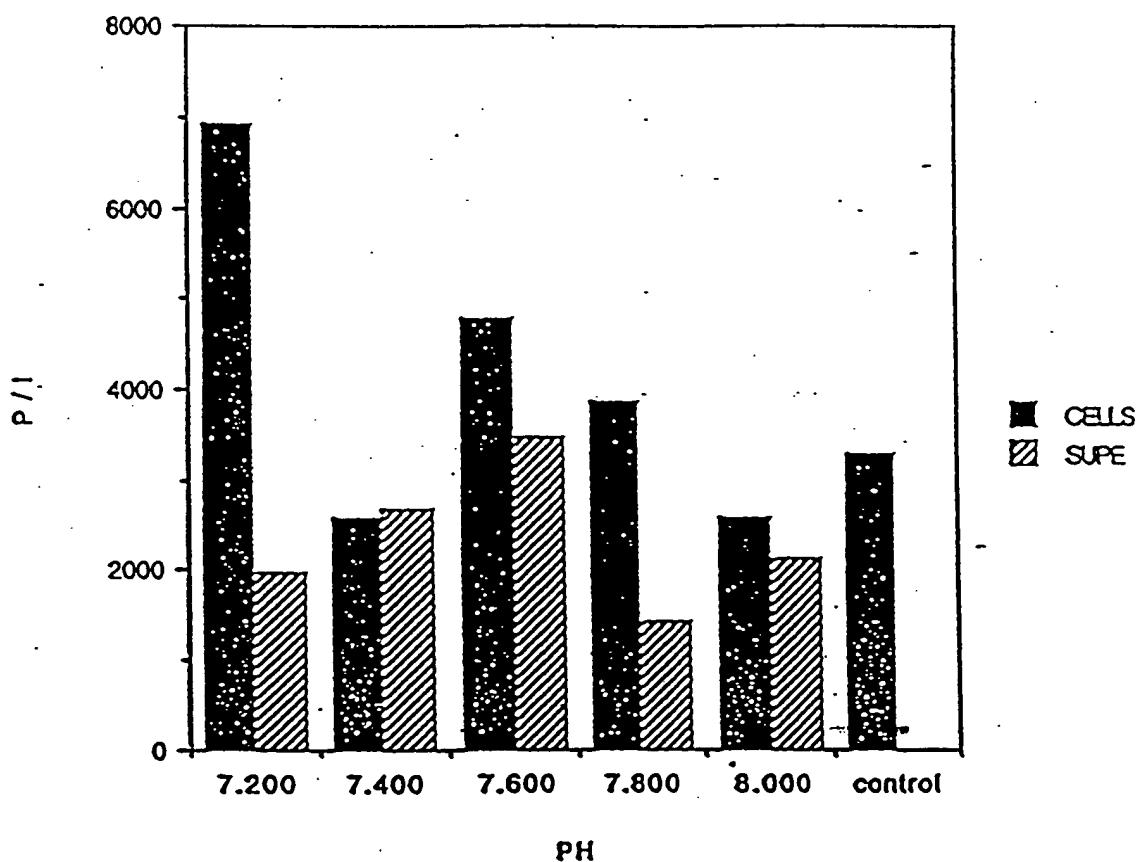
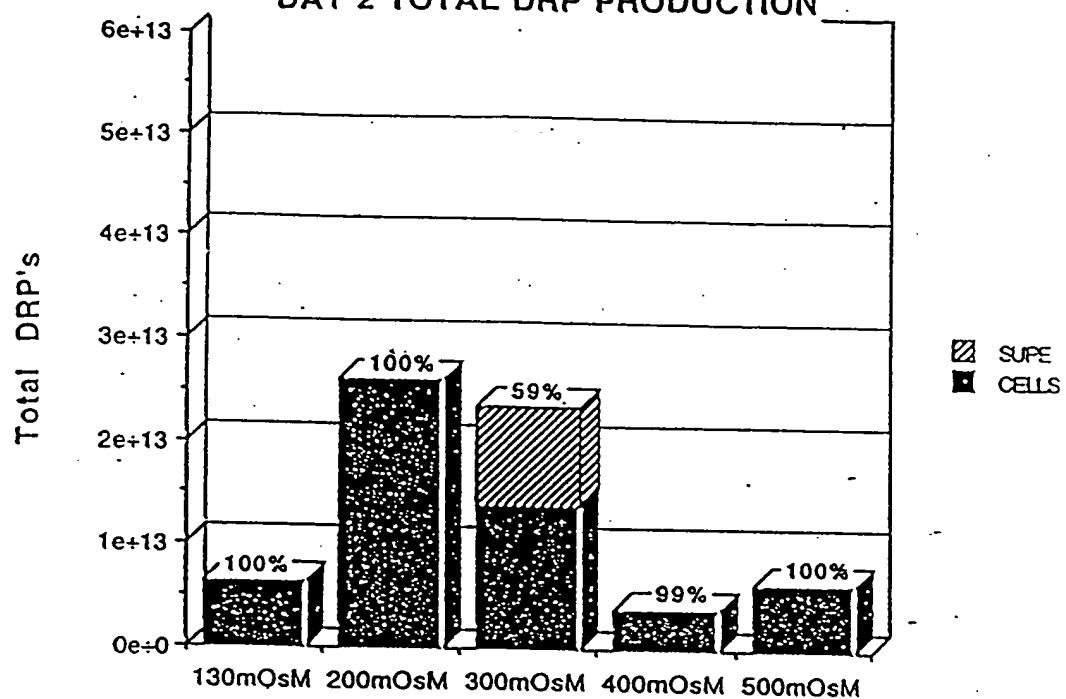


Figure 17

A

CFTR JL-14 BIOREACTOR EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 2 TOTAL DRP PRODUCTION



B

CFTR JL-14 BIOREACTOR, EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 3 TOTAL DRP PRODUCTION

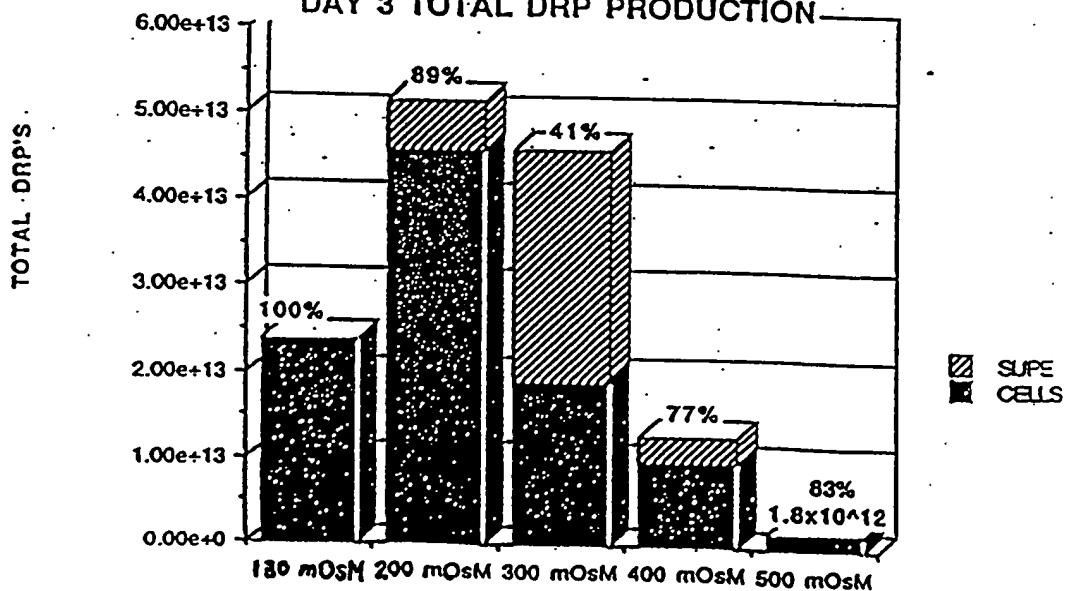


Figure 18

CFTR JL-14 BIOREACTOR EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 4 TOTAL DRP PRODUCTION

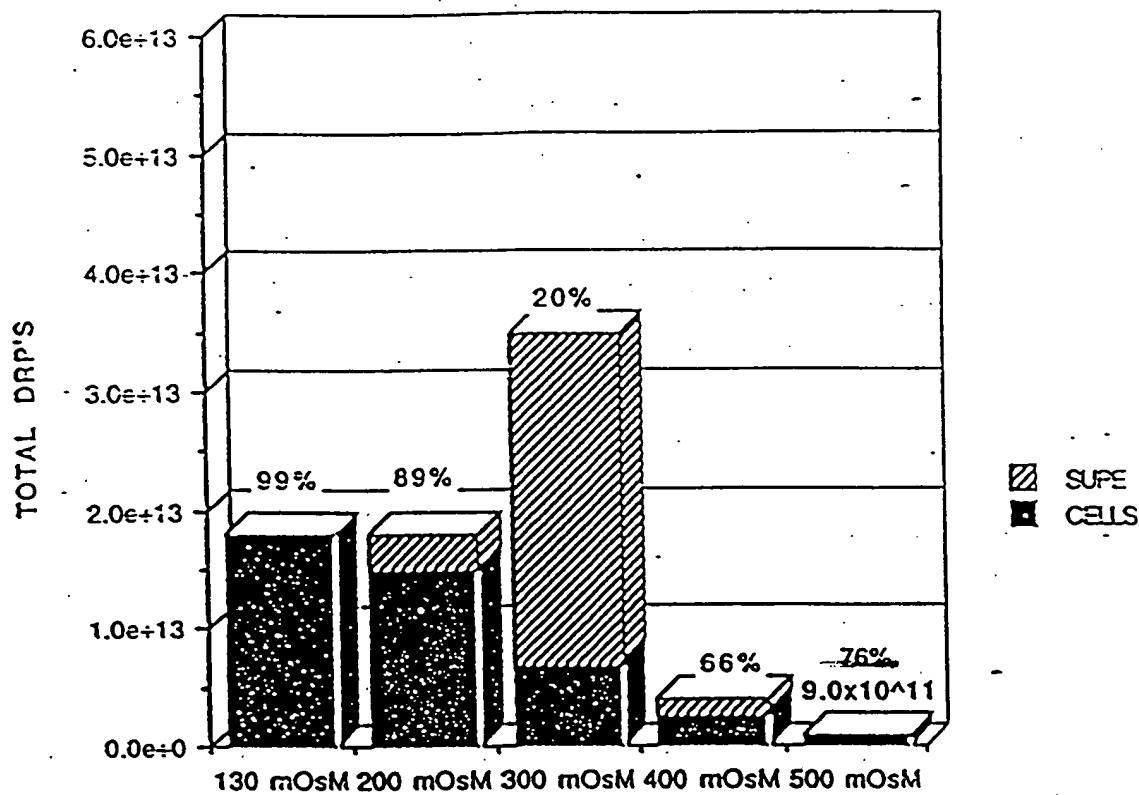
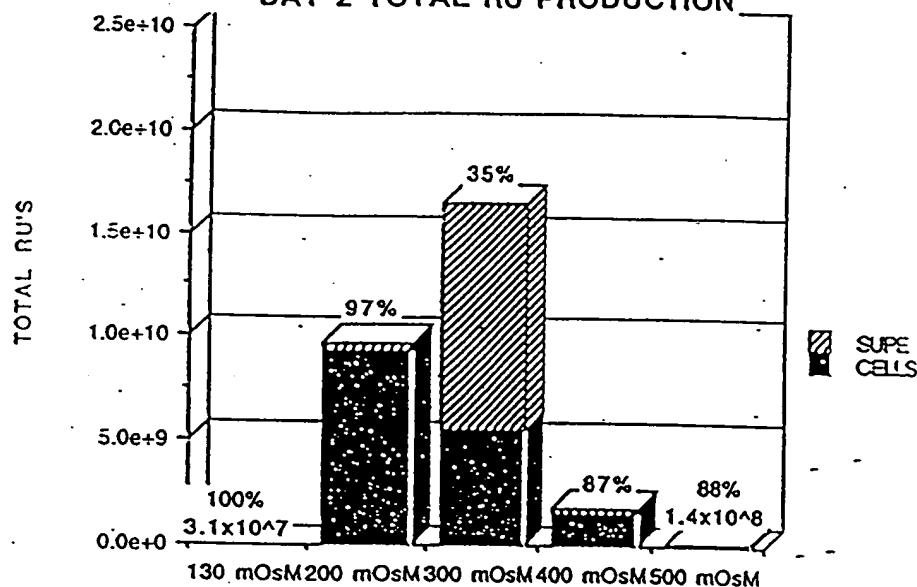


Figure 18C

A CFTR JL-14 BIOREACTOR EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 2 TOTAL RU PRODUCTION



B CFTR JL-14 BIOREACTOR EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 3 TOTAL RU PRODUCTION

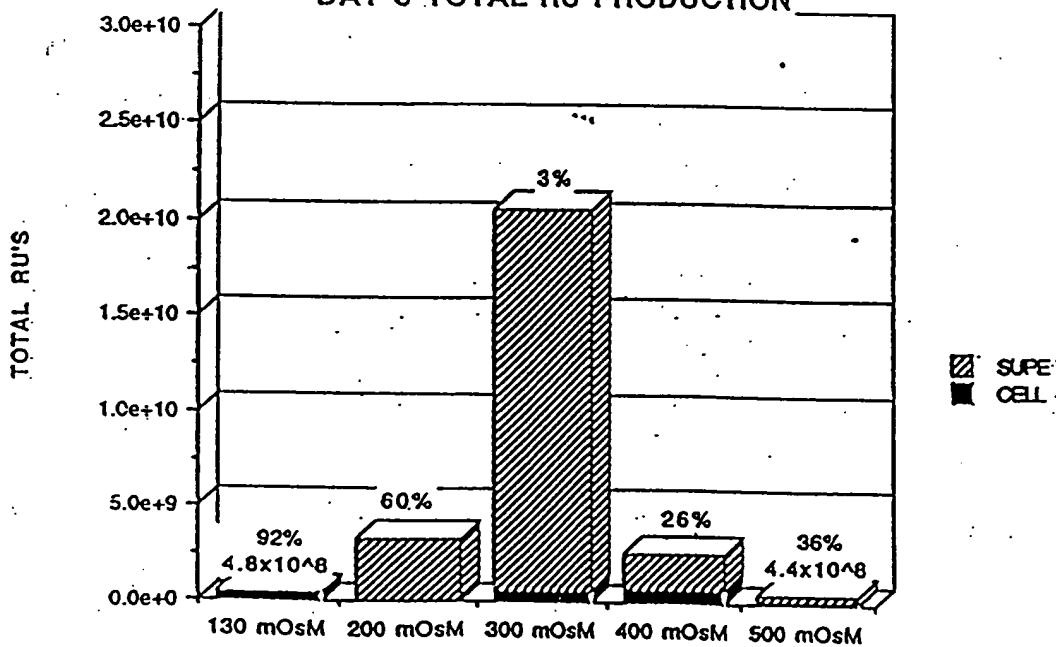


Figure 19

CFTR JL-14 BIOREACTOR EXPERIMENT
INITIAL PRODUCTION OSMOLALITY
DAY 4 TOTAL RU PRODUCTION

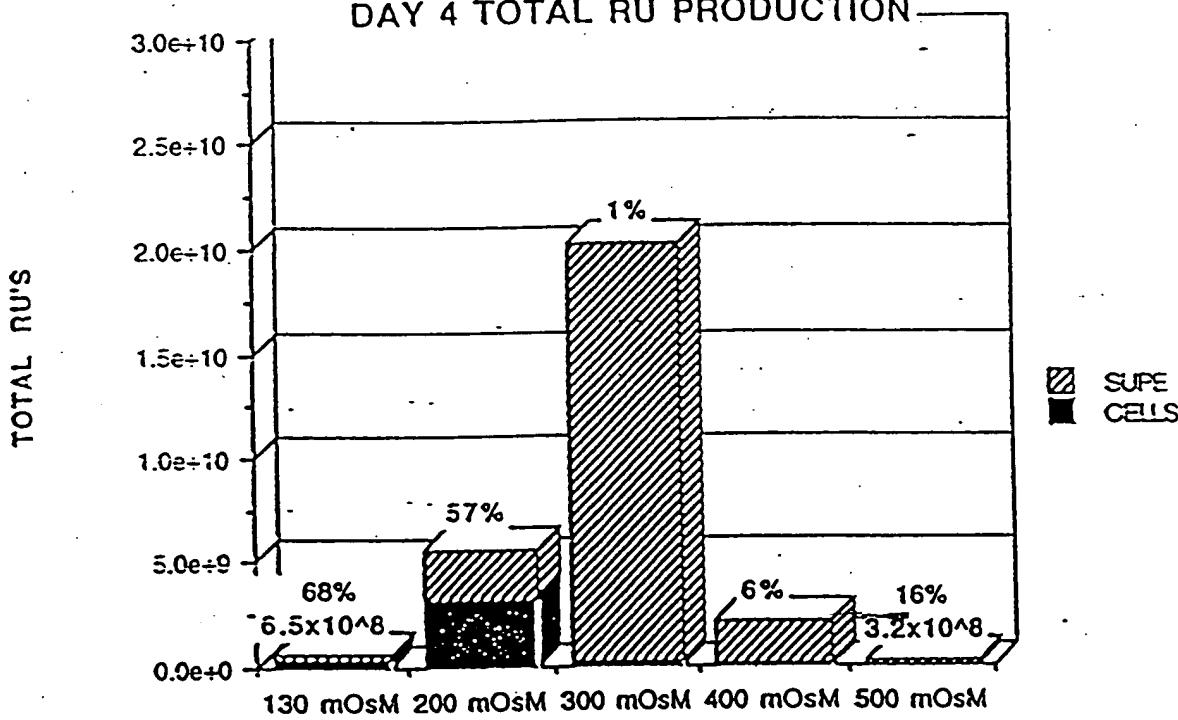


Figure 19C

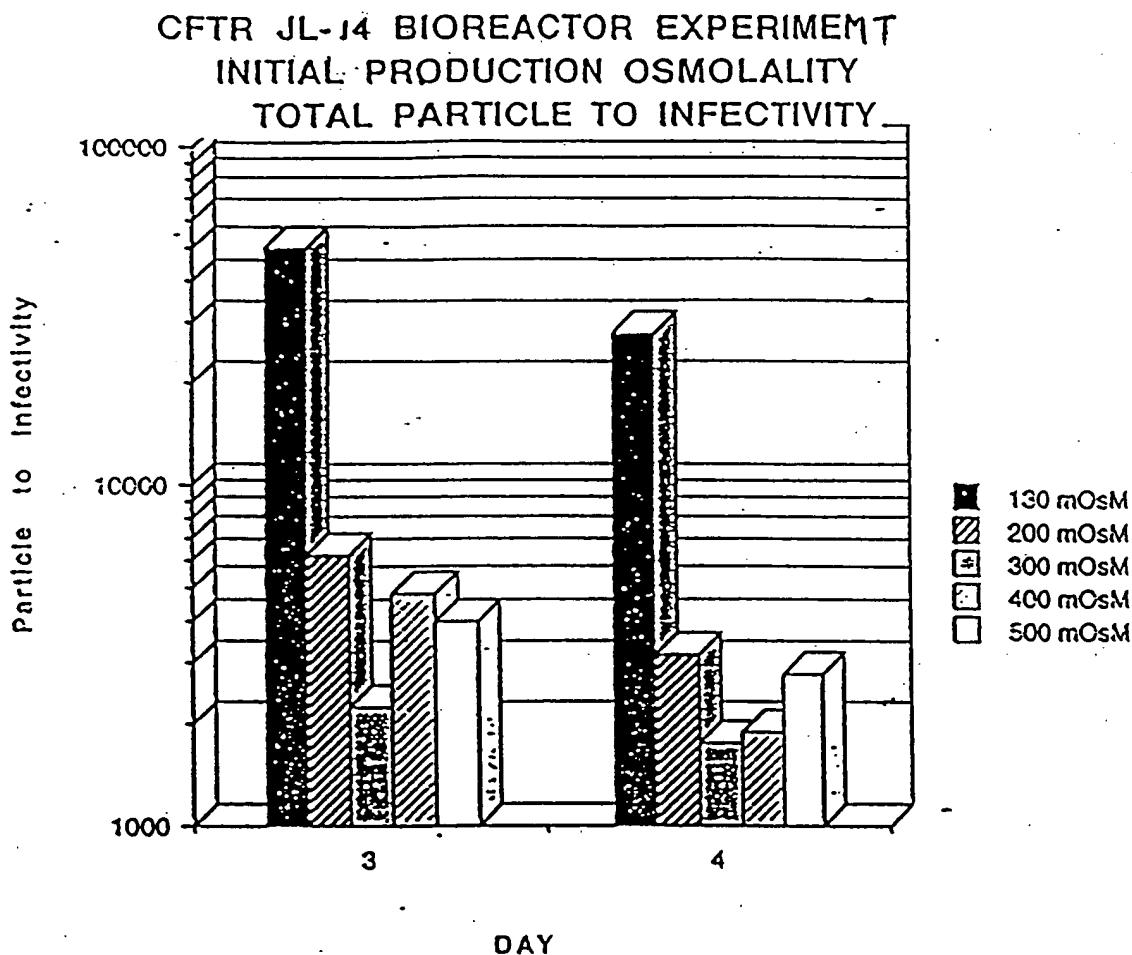
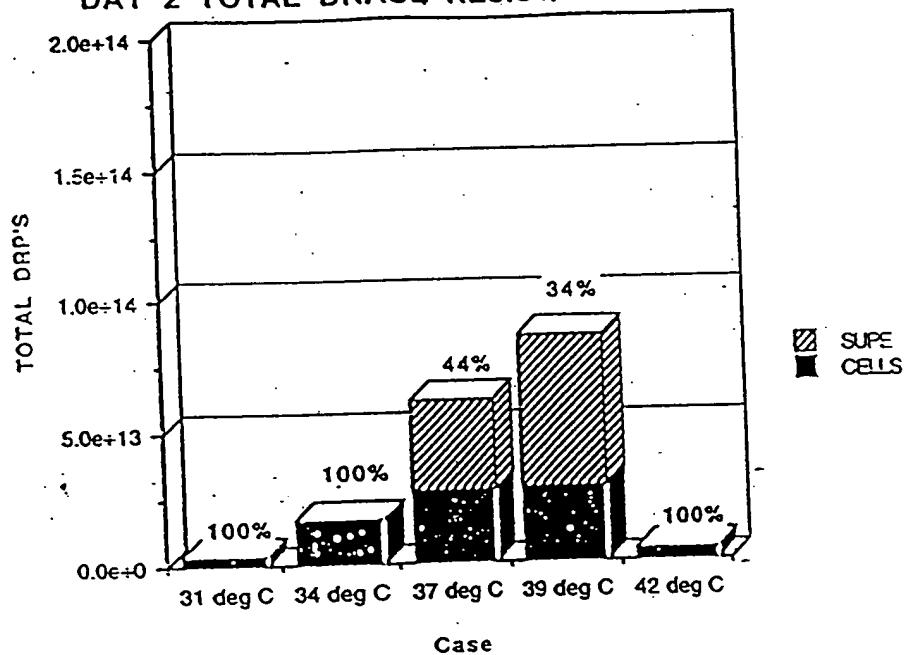


Figure 20

A

CFTR JL-14 REACTOR EXP. TEMPERATURE
DAY 2 TOTAL DNASE RESISTANT PARTICLES



B

CFTR JL-14 REACTOR EXP. TEMPERATURE
DAY 3 TOTAL DNASE RESISTANT PARTICLES

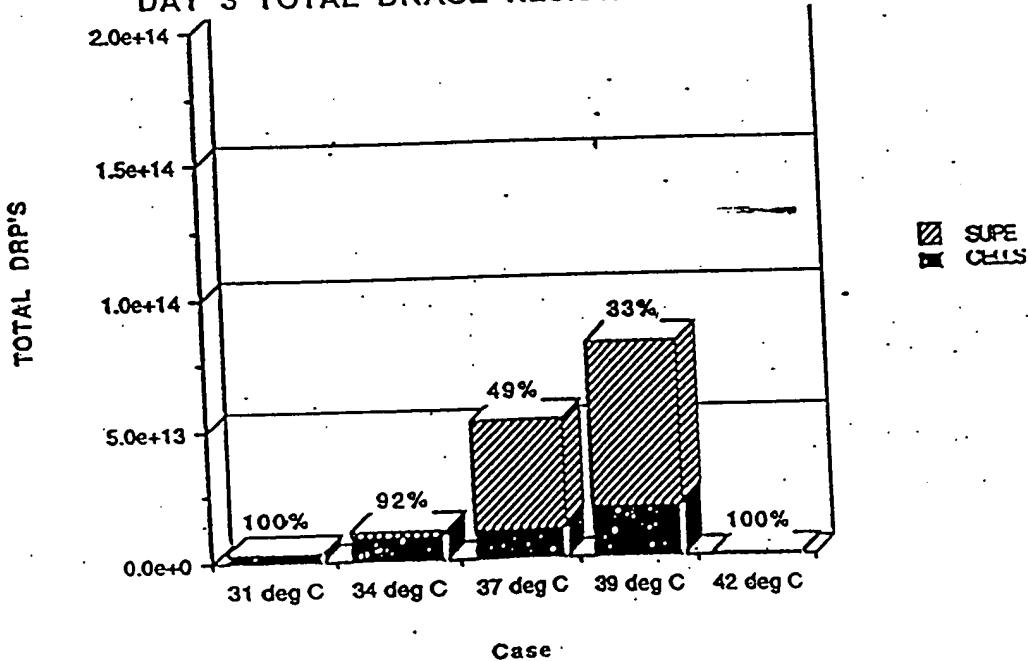


Figure 21

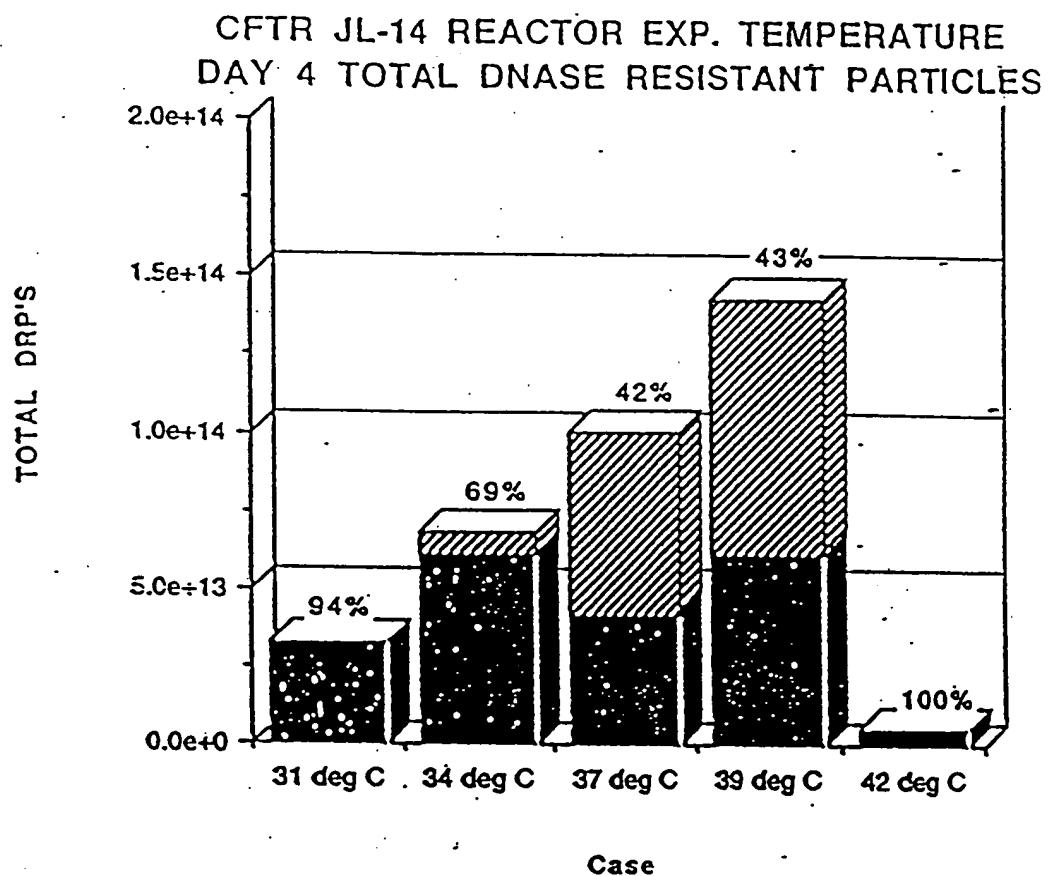


Figure 21C

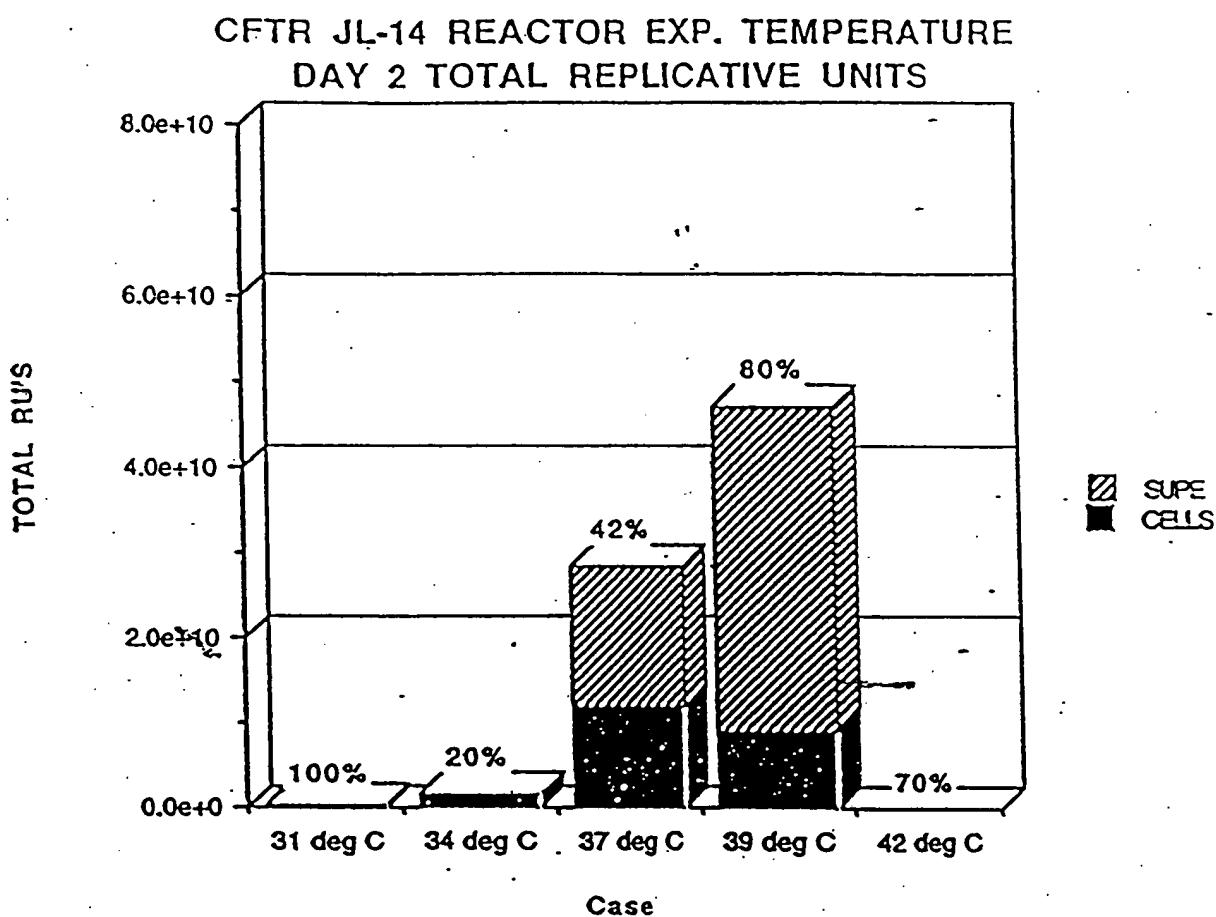
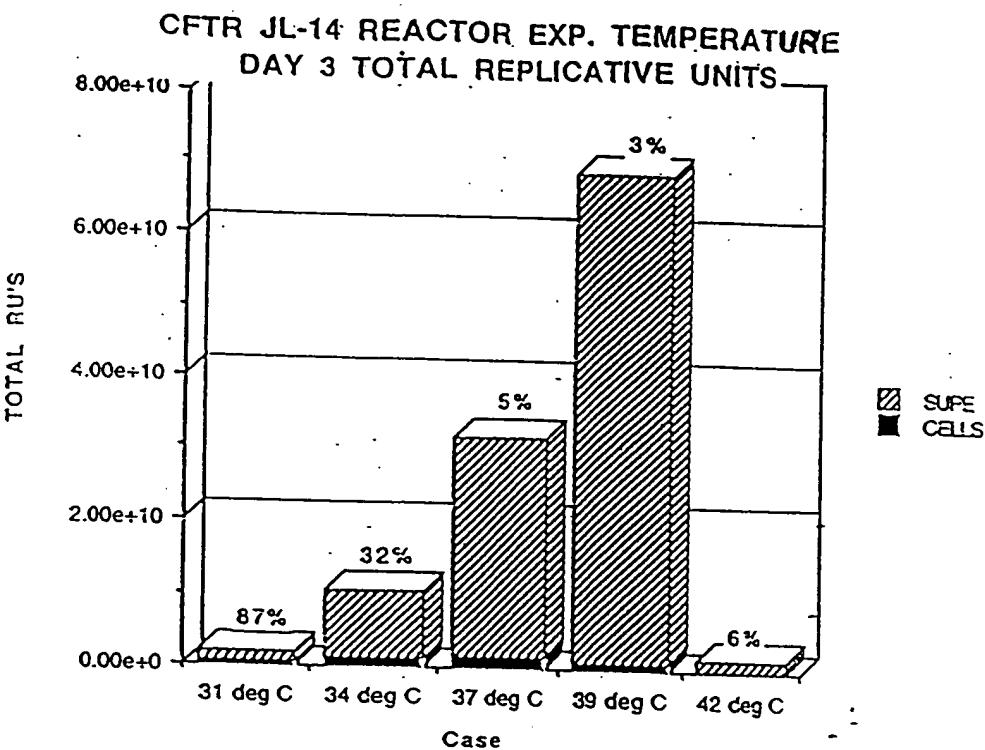
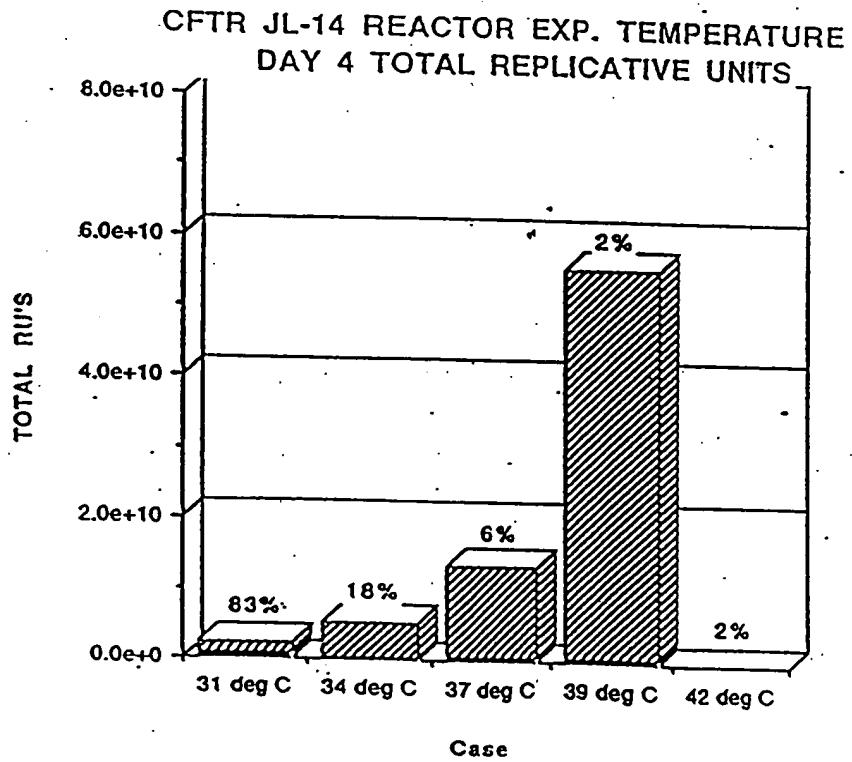


Figure 22A

B



C



Figures 22B and 22C

CFTR JL-14 Feed Experiment II
Total DRP's - Day 3 Supe

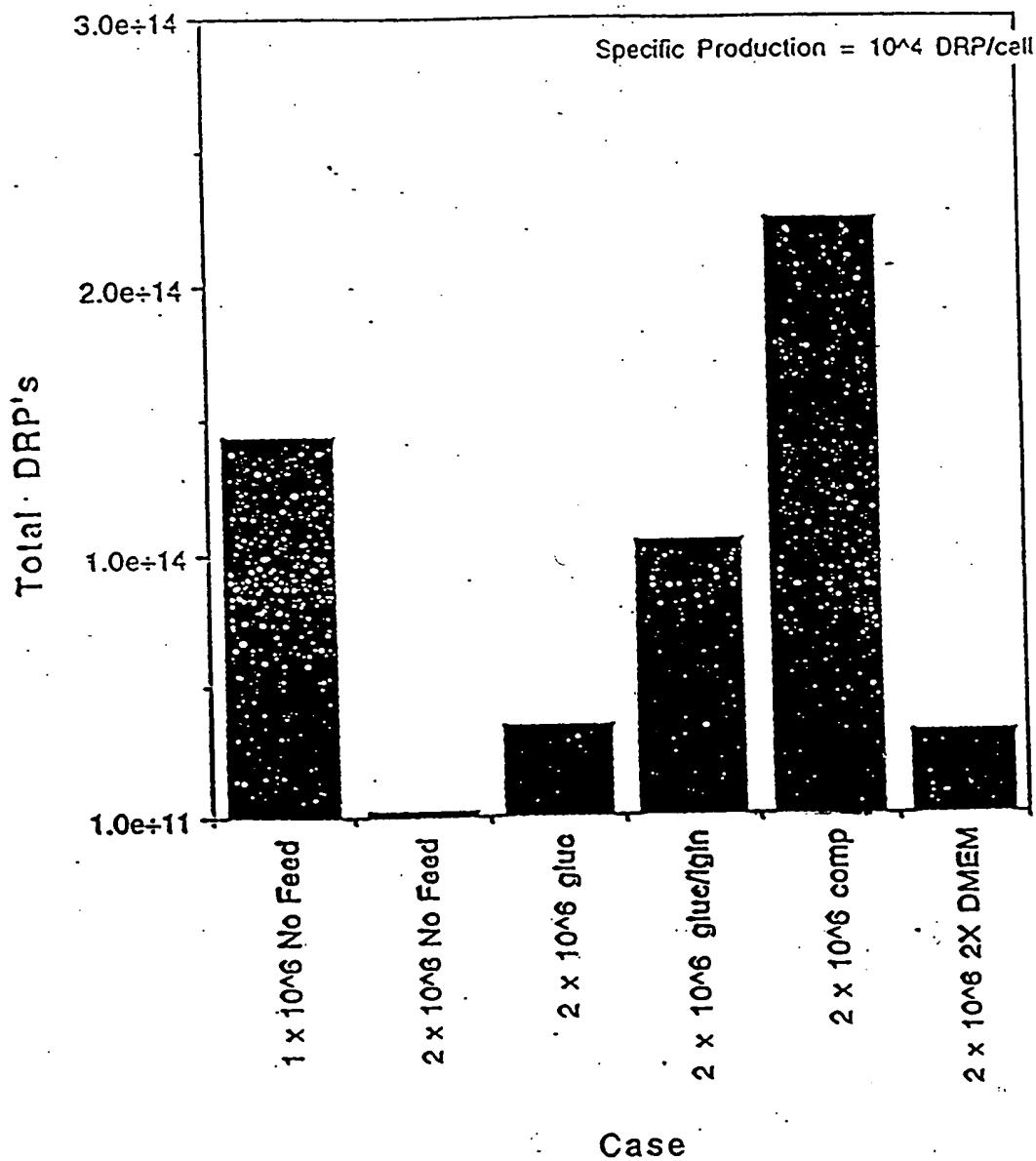


Figure 23

CFTR JL-14 Feed Experiment II
Total RU's - Day 3 Supe

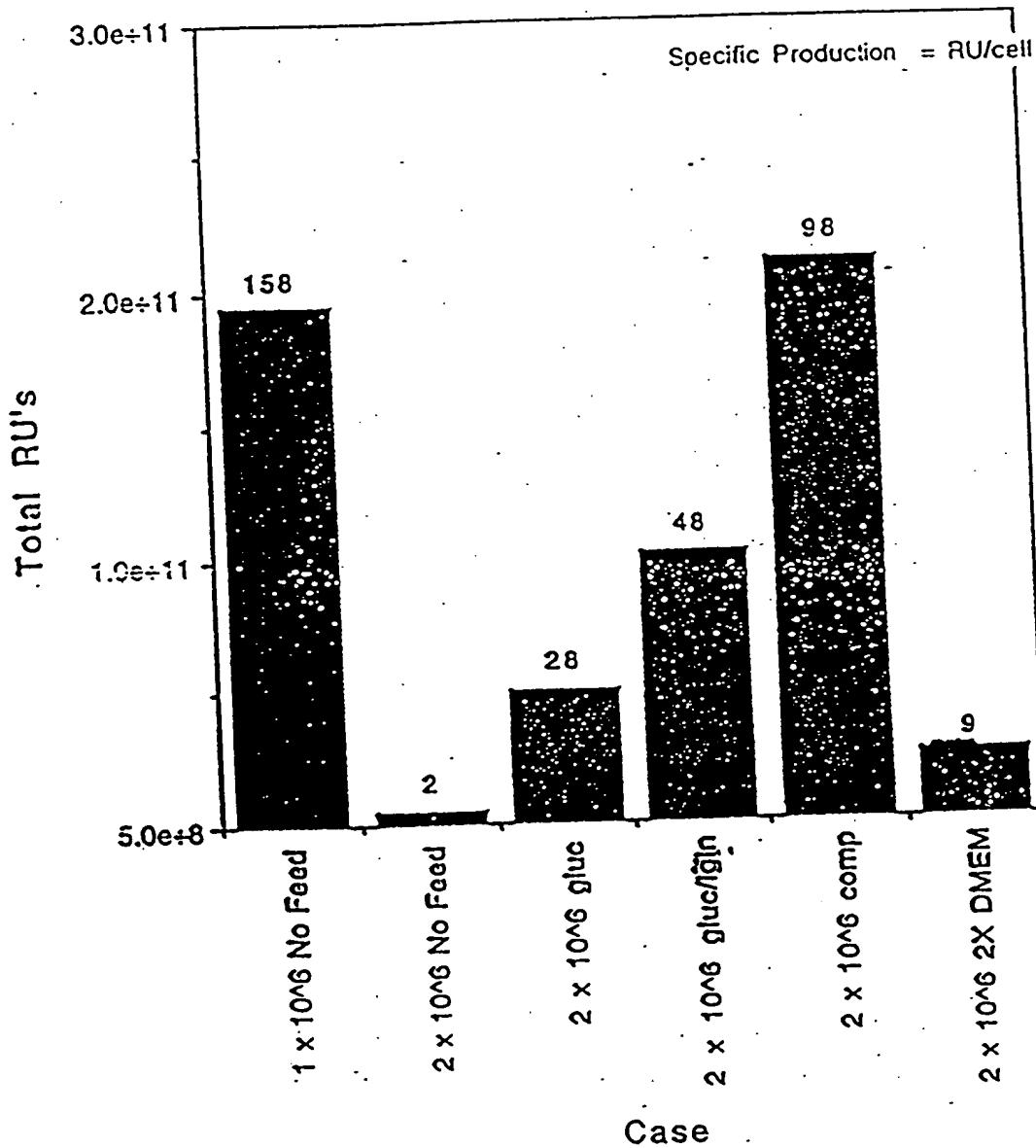


Figure 24

CFTR JL-14 Feed Experiment II
P/I ratio - Day 3 Supe

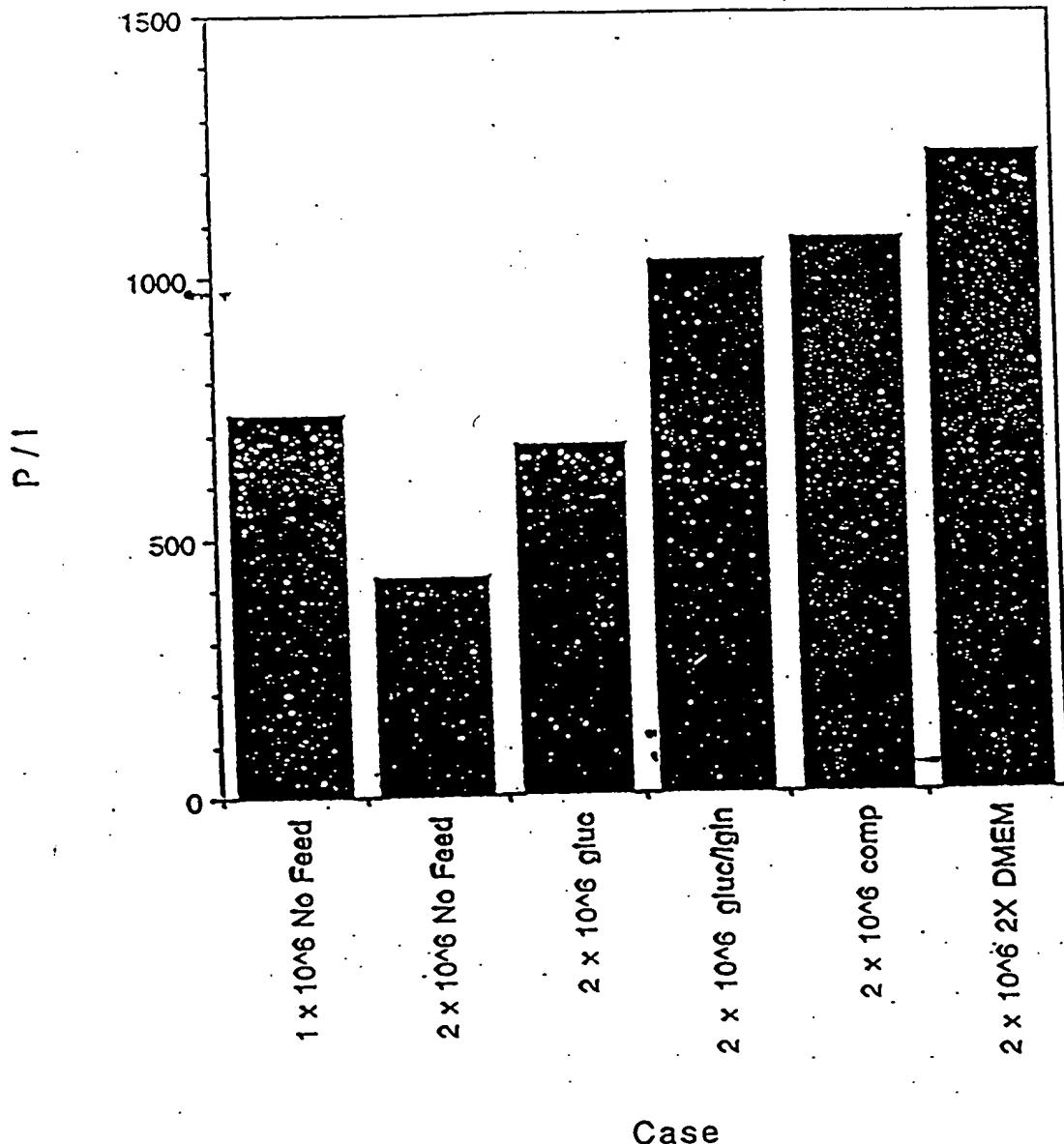


Figure 25

Lactalbumin Hydrolysate w/Earle's Salts (ELH)		
Base Cat No.	11250	11800
Component	1X Liquid mg/L	Powder mg/L
INORGANIC SALTS:		
CaCl ₂ (anhyd.)	200.00	200.00
KCl	400.00	400.00
MgSO ₄ (anhyd.)	97.67	97.70
NaCl	6800.00	6800.00
NaHCO ₃	2200.00	-
Na ₂ HPO ₄ · H ₂ O	140.00	140.00
OTHER COMPONENTS:		
D-Glucose	1000.00	1000.00
Lactalbumin Hydrolysate	6500.00	5000.00
Phenol Red	10.00	10.00

MEM Amino Acids Solutions ²		
Base Cat No.	11136	21135
Component	50X Liquid mg/L	50X Liquid mg/L
AMINO ACIDS:		
L-Arginine	6320.00	6320.00
L-Cystine	1200.00	1200.00
L-Glutamine	-	14600.00
L-Histidine-HCl-H ₂ O	2100.00	2100.00
L-Isoleucine	2625.00	2625.00
L-Luecine	2620.00	2620.00
L-Lysins HCl	3625.00	3625.00
L-Methionine	755.00	755.00
L-Phenylalanine	1650.00	1650.00
L-Threonine	2380.00	2380.00
L-Tryptophan	510.00	510.00
L-Tyrosine	1800.00	1800.00
L-Valine	2340.00	2340.00

References:

1. Eagle, H. (1955) Proc. Soc. Exp. Biol. Med. 89, 362.
2. Eagle, H. (1959) Science 130, 432

MEM Non-Essential Amino Acids Solution ²	
Base Cat No.	11140
Component	100X Liquid mg/L
AMINO ACIDS:	
L-Alanine	890.00
L-Asparagine	1500.00
L-Aspartic	1330.00
L-Glutamine	1470.00
Glycine	750.00
L-Proline	1150.00
L-Serine	1050.00

MEM Vitamin Solutions ²	
Base Cat No.	11120
Component	50X Liquid mg/L
NaCl	8500.00
D-Ca Pantothenate	100.00
Choline Chloride	100.00
Folic Acid	100.00
I-Inositol	200.00
Nicotinamide	100.00
Pyridoxal-HCl	100.00
Riboflavin	10.00
Thiamine HCl	100.00

Figure 26

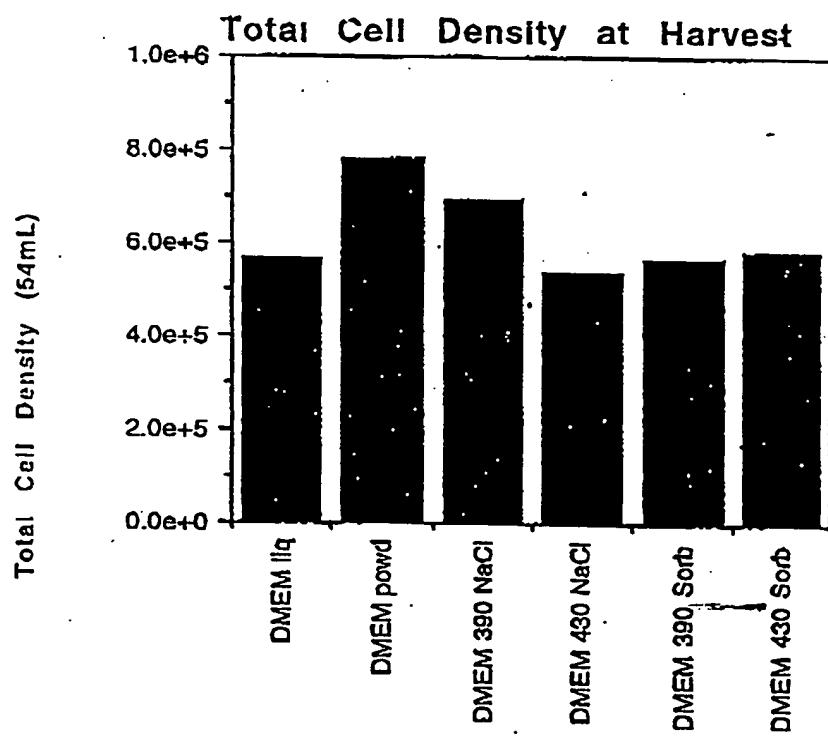


Figure 27

Title: METHODS FOR GENERATING HIGH TITER HELPER-FREE
PREPARATIONS OF RELEASED RECOMBINANT AAV VECTORS
Inventor: Edward M. ATKINSON et al.
Application No.: Not Yet Assigned
Docket No.: 226272003311

Sheet 32 of 44

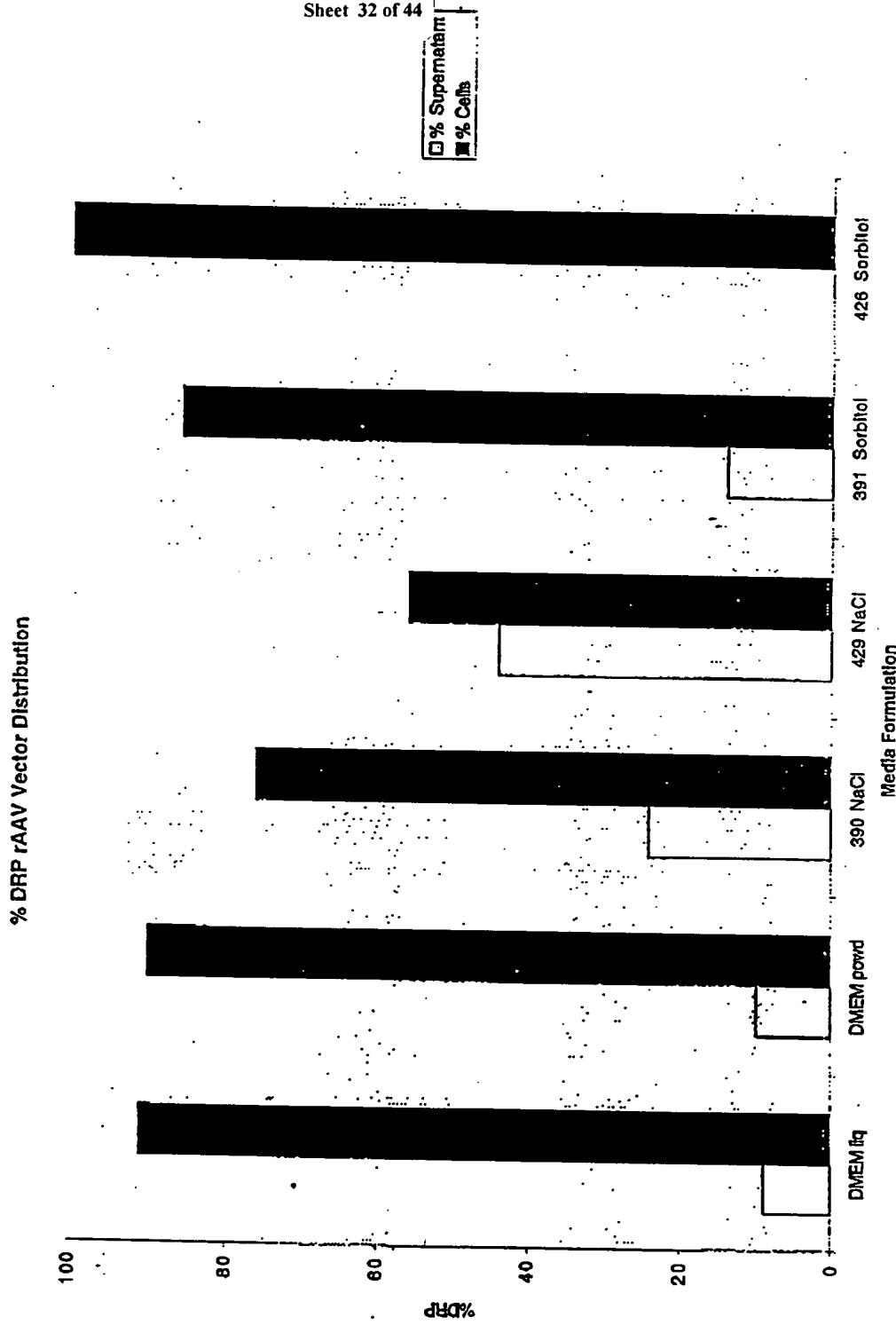


Figure 28

Title: METHODS FOR GENERATING HIGH TITER HELPER-FREE
PREPARATIONS OF RELEASED RECOMBINANT AAV VECTORS
Inventor: Edward M. ATKINSON et al.
Application No.: Not Yet Assigned
Docket No.: 226272003311

Sheet 33 of 44

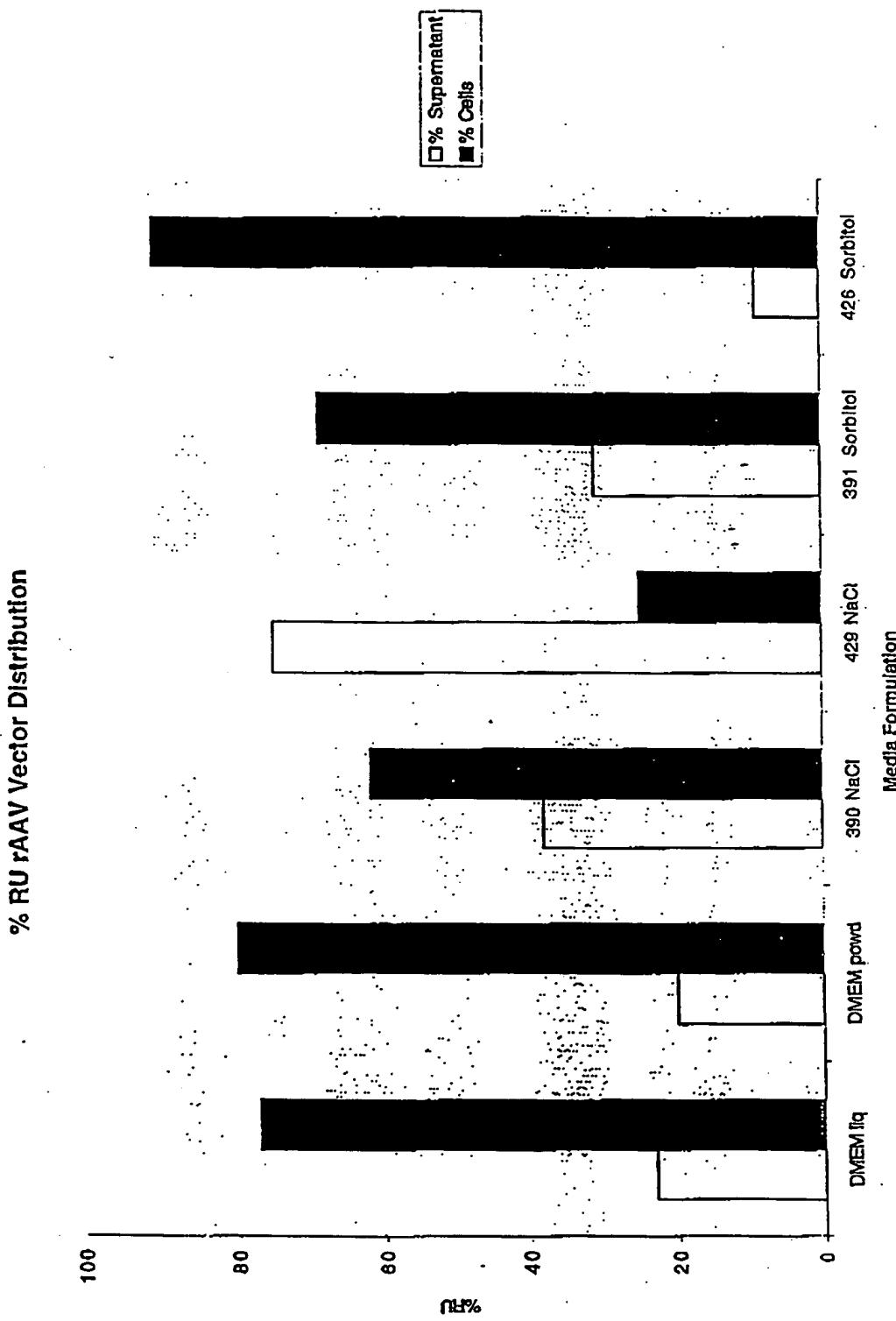


Figure 29

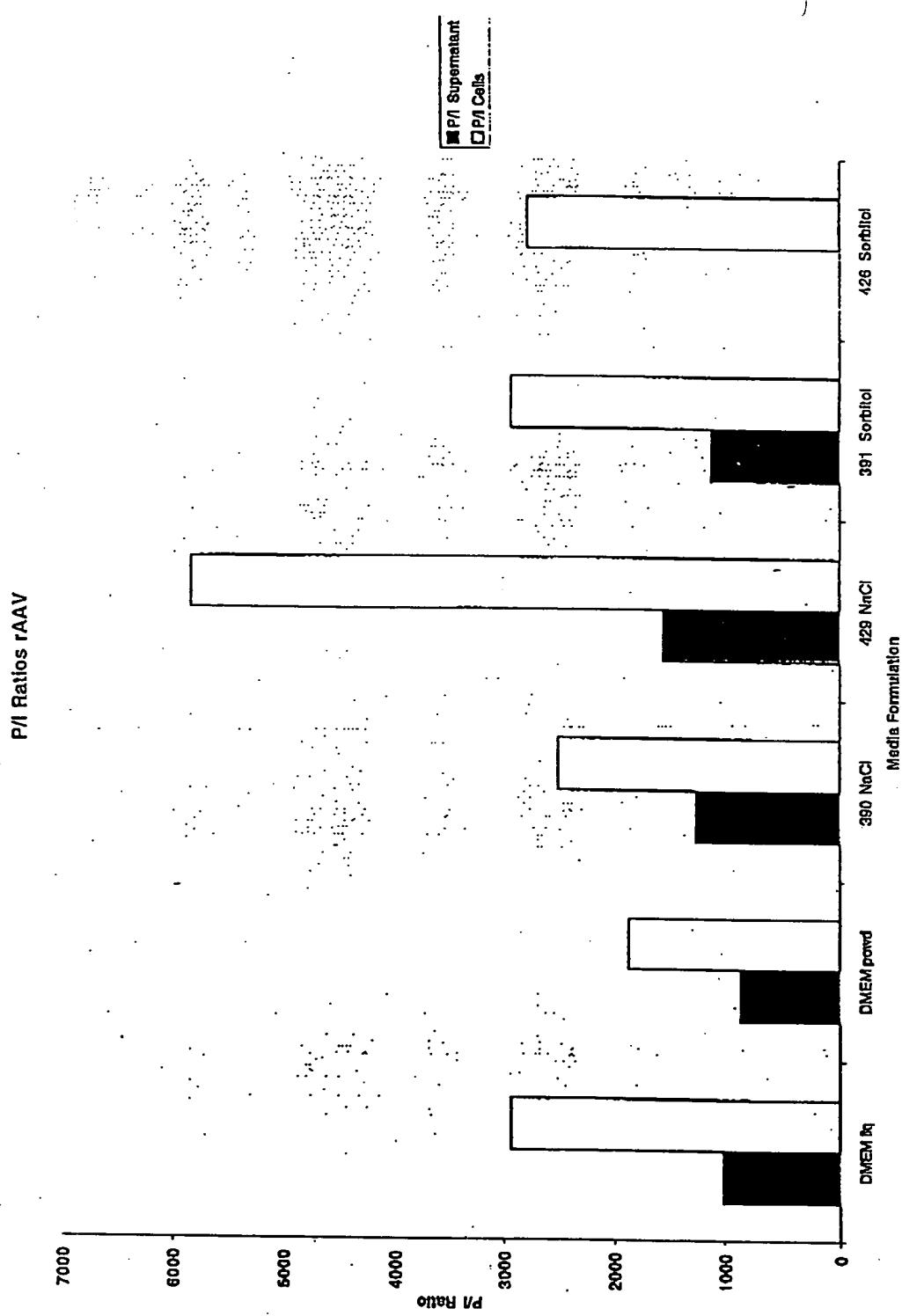
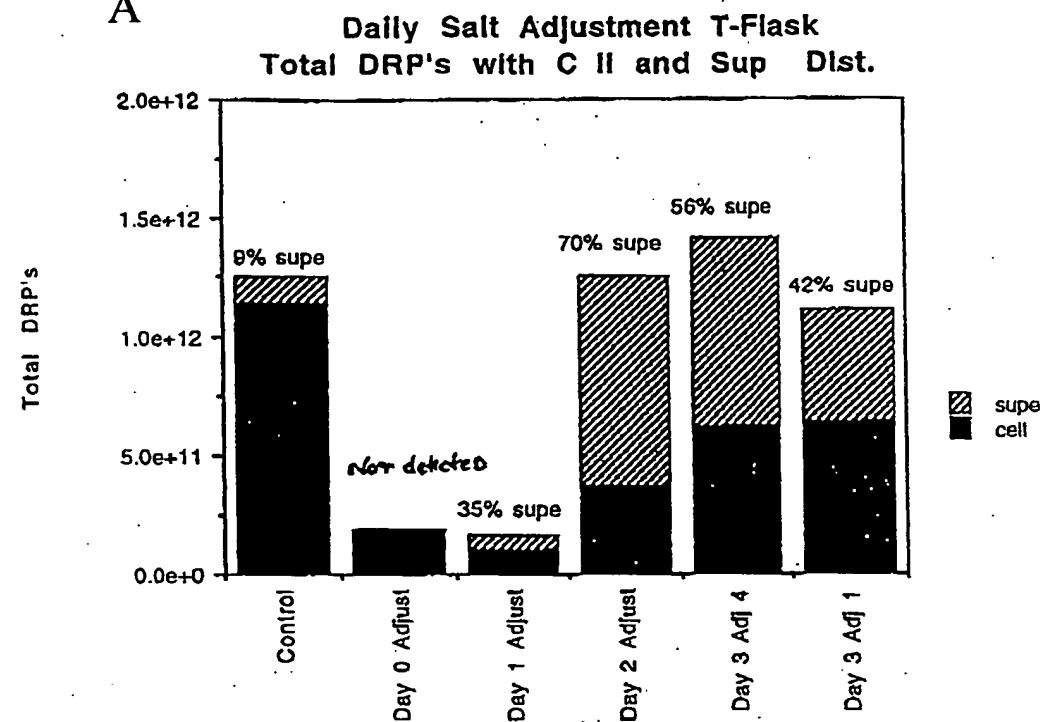


Figure 30

A



B

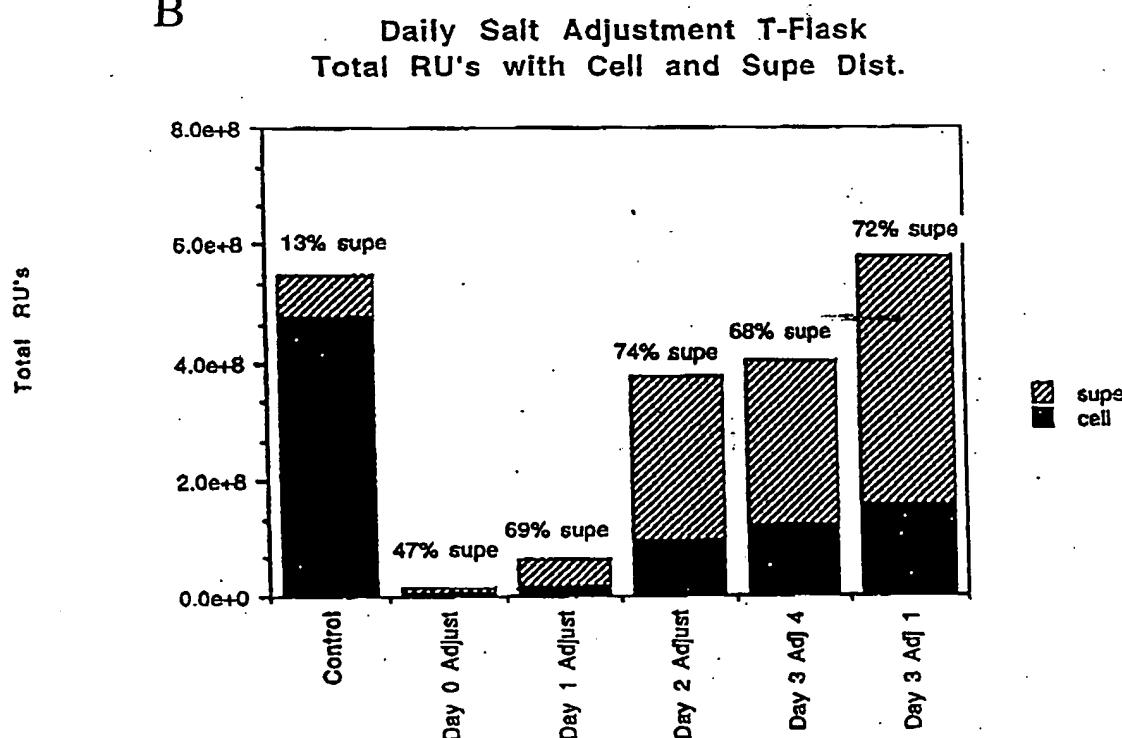


Figure 31

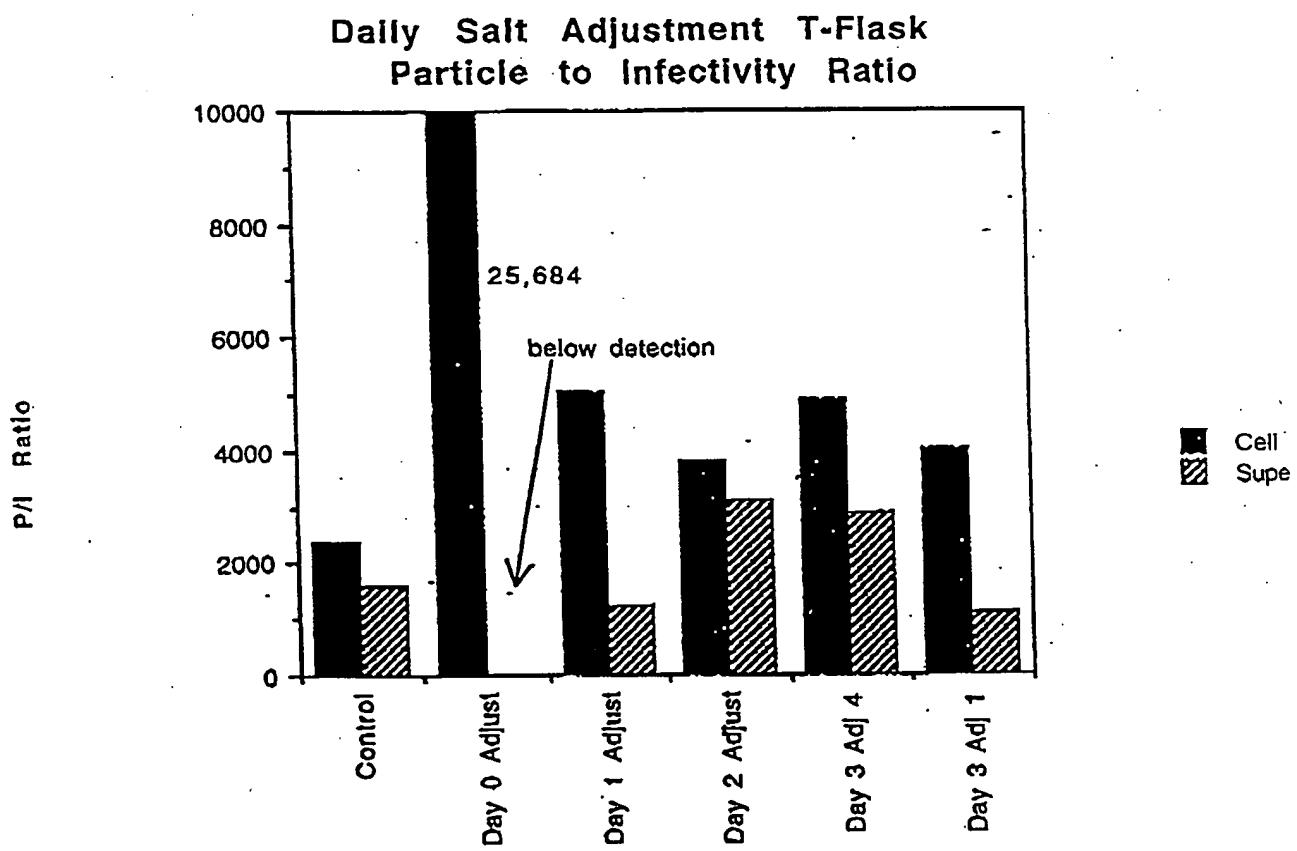
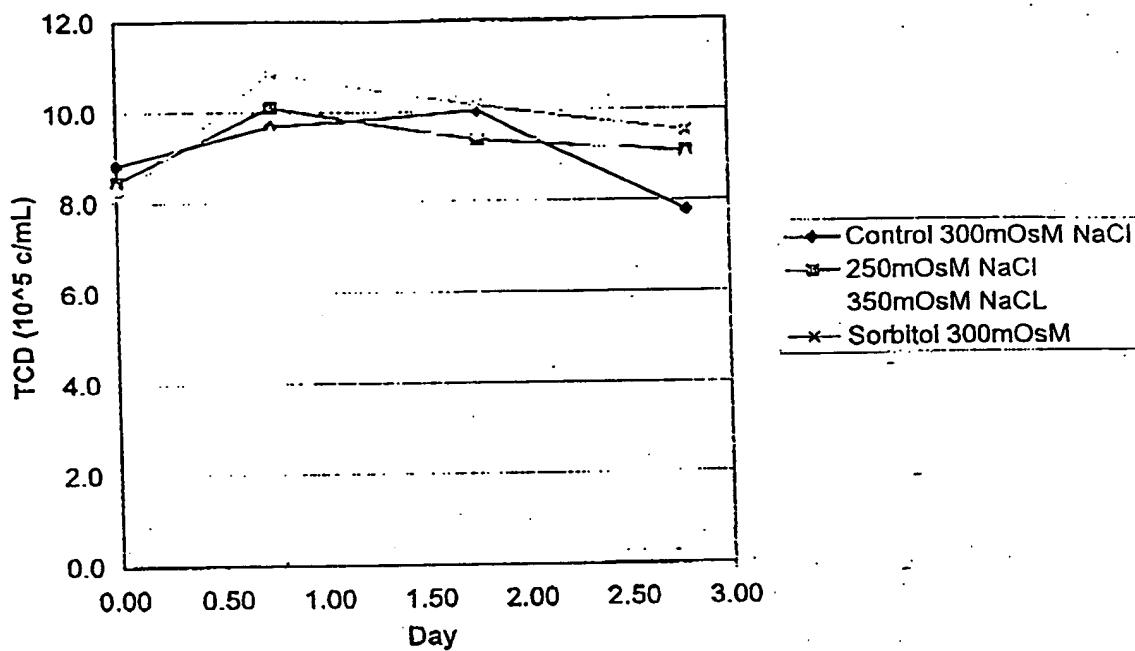


Figure 32

A

Total Cell Density



B

Total Cell Density

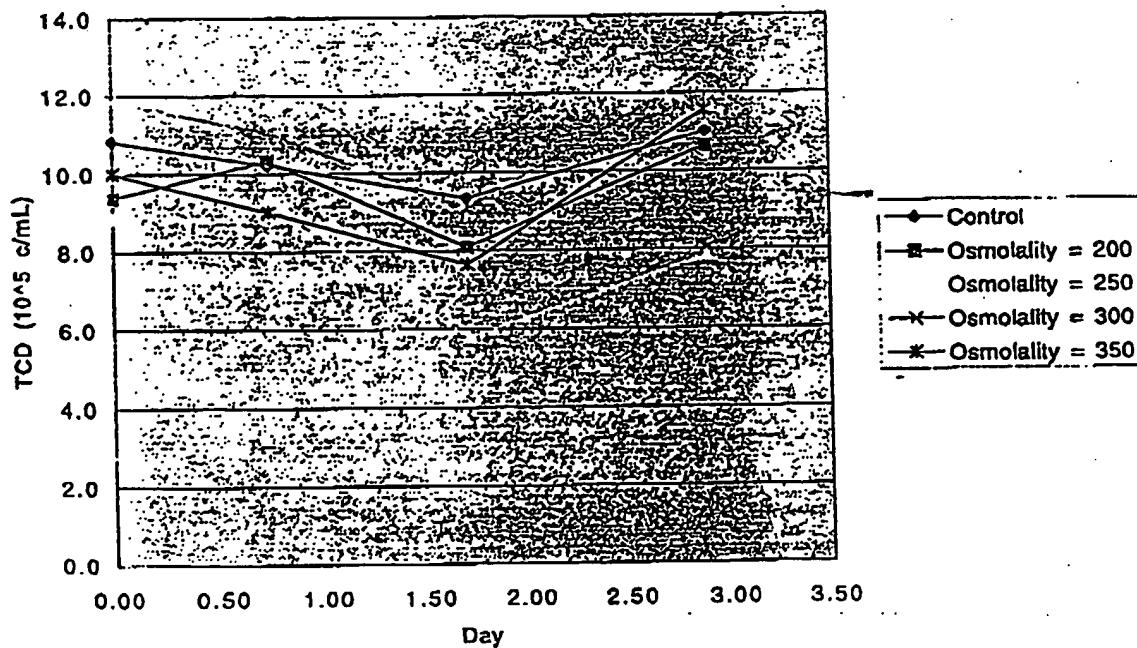
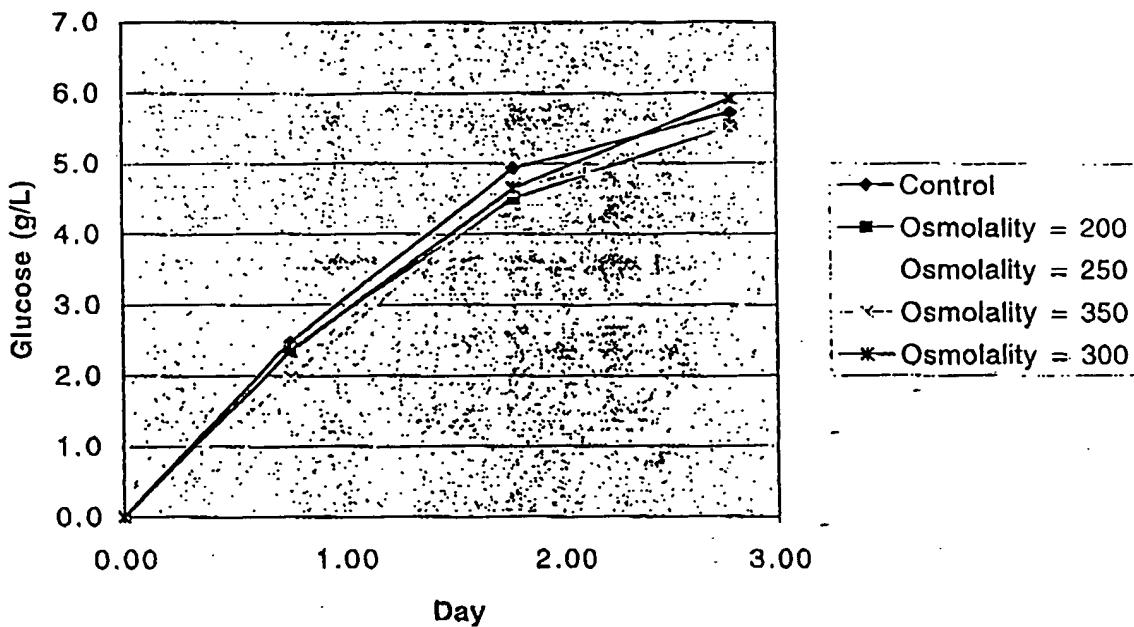


Figure 33

A

Cumulative Glucose Consumed



B

Cumulative Glucose Consumed

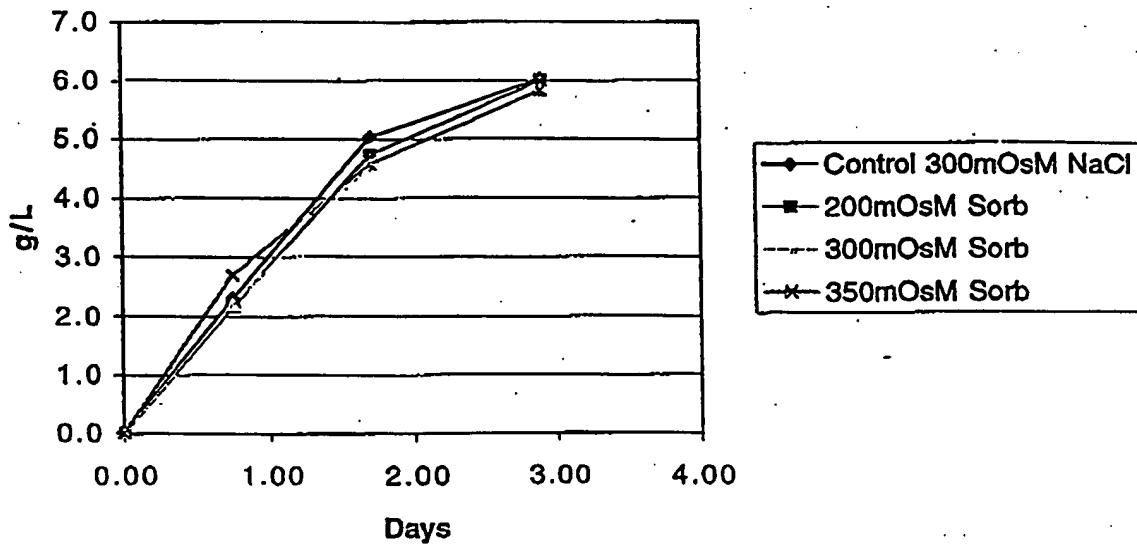
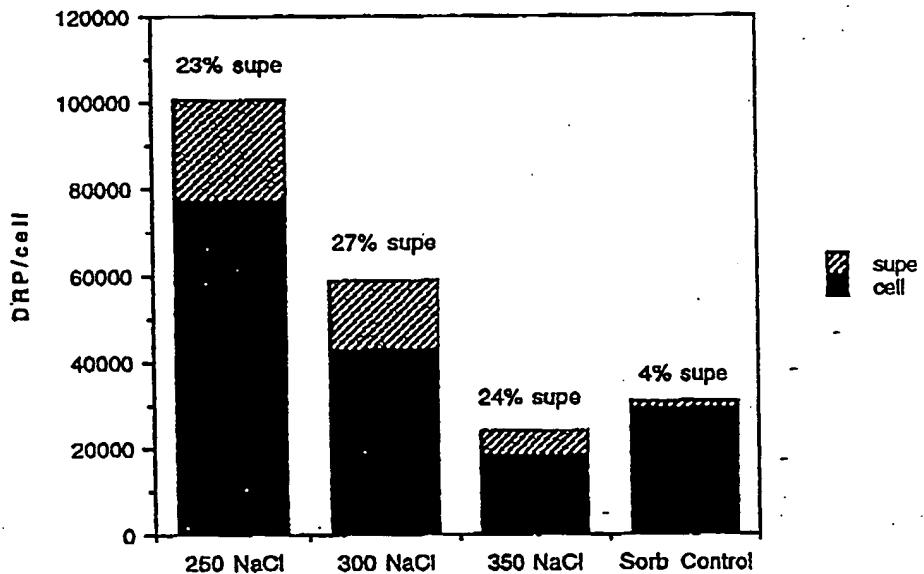


Figure 34

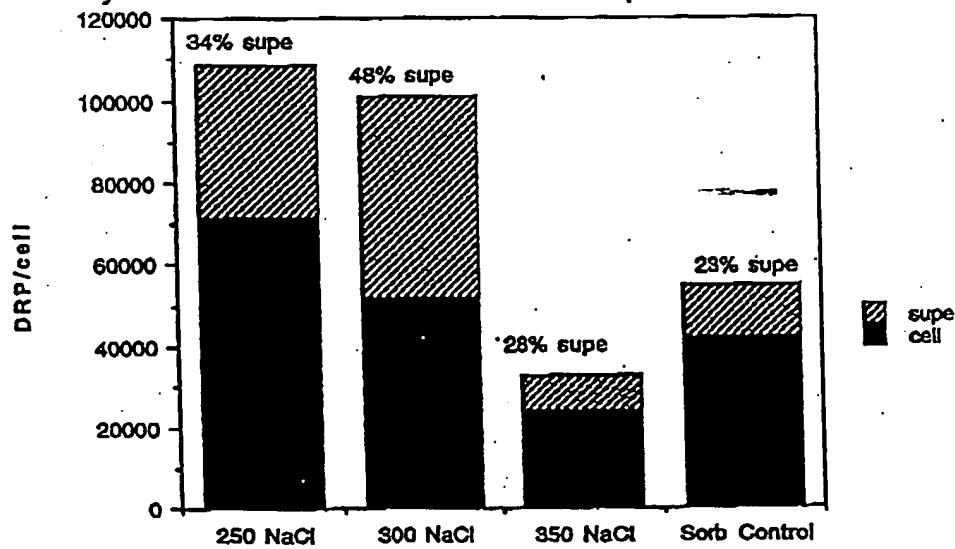
A

Bioreactor Osmolality Experiment (NaCl)
Day 2 DRP/cell with Cell and Supe Distribution



B

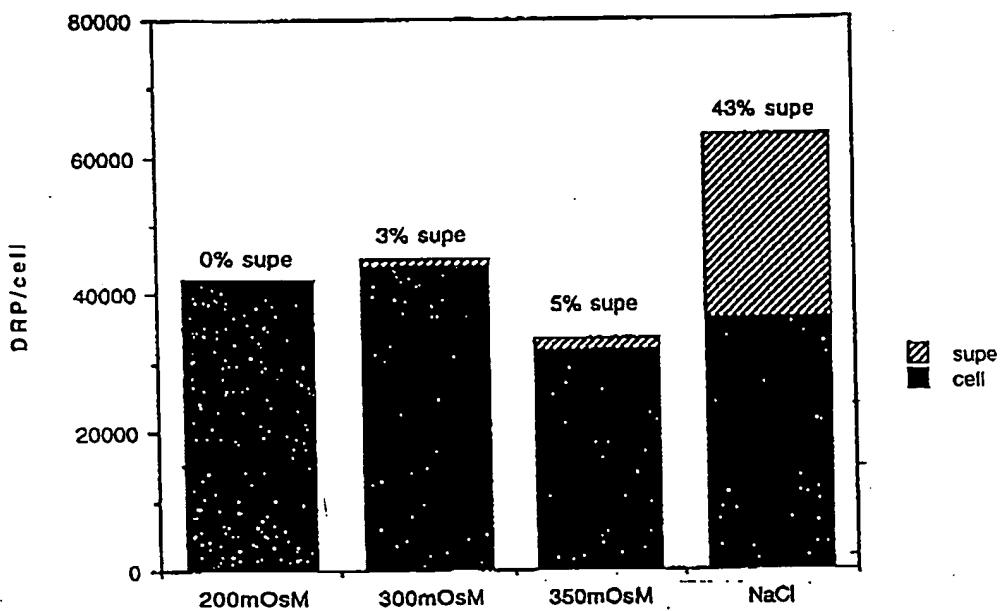
Bioreactor Osmolality Experiment (NaCl)
Day 3 DRP/cell with Cell and Supe Distribution



Figures 35A and 35B

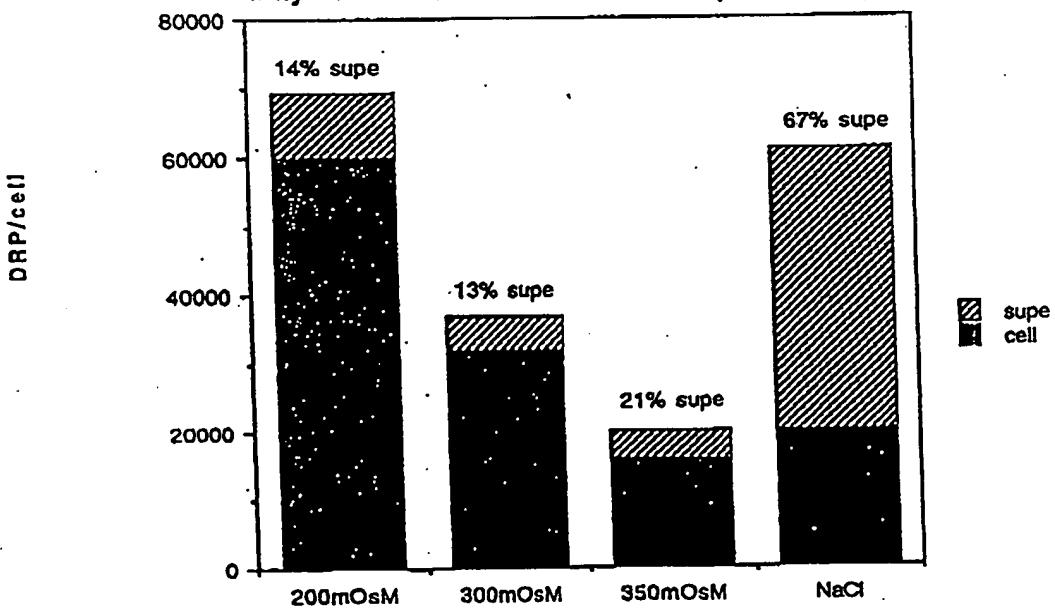
C

Bioreactor Osmolality Exp. (Sorbitol)
Day 2 DRP/cell Cell and Sup Distribution



D

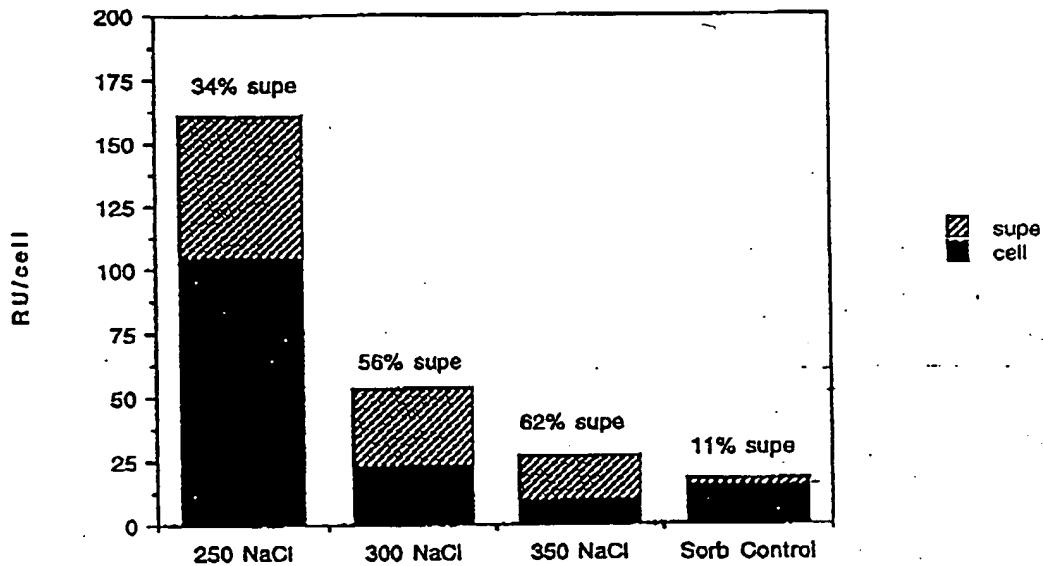
Bioreactor Osmolality Exp. (Sorbitol)
Day 3 DRP/cell Cell and Supe Distribution



Figures 35C and 35D

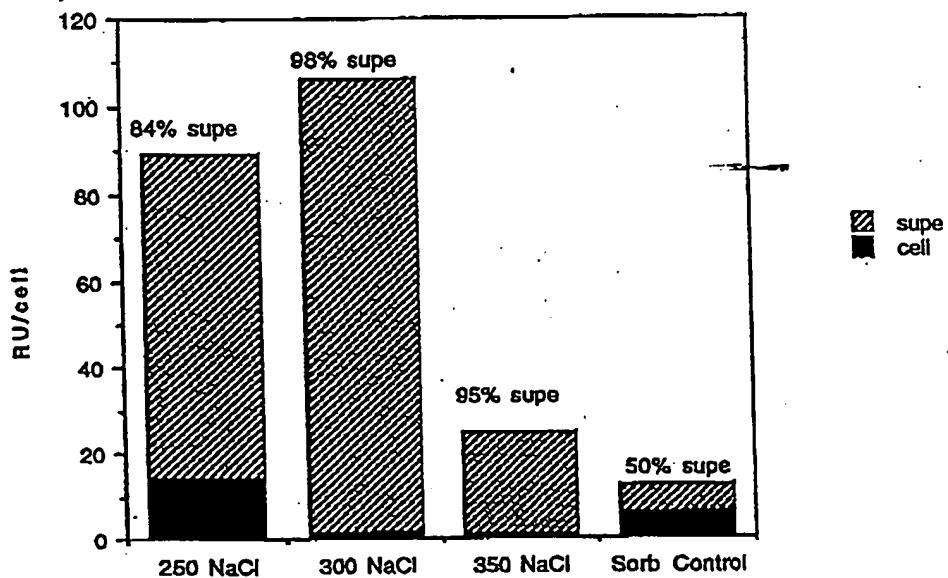
A

Bioreactor Osmolality Experiment (NaCl)
Day 2 RU/cell with Cell and Supe Distribution



B

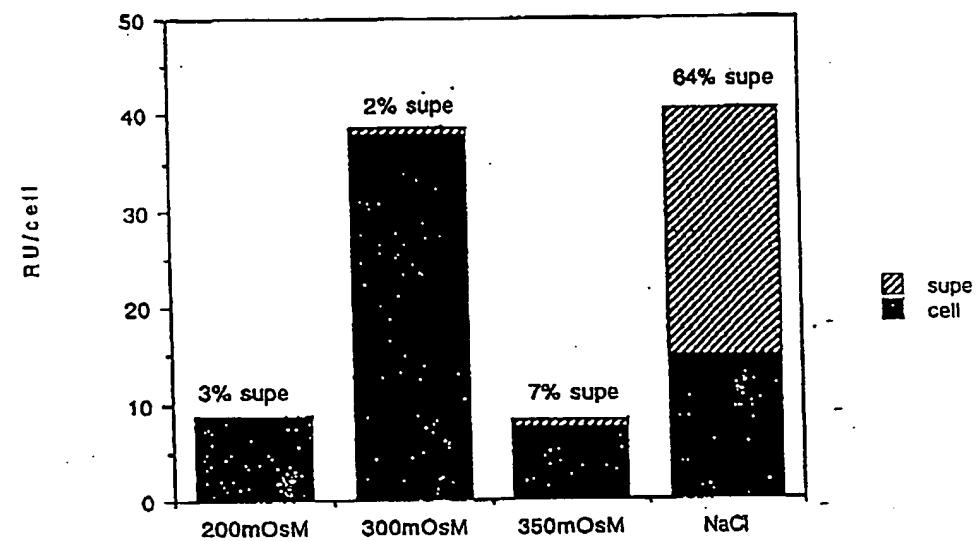
Bioreactor Osmolality Experiment (NaCl)
Day 3 RU/cell with Cell and Supe Distribution



Figures 36A and 36B

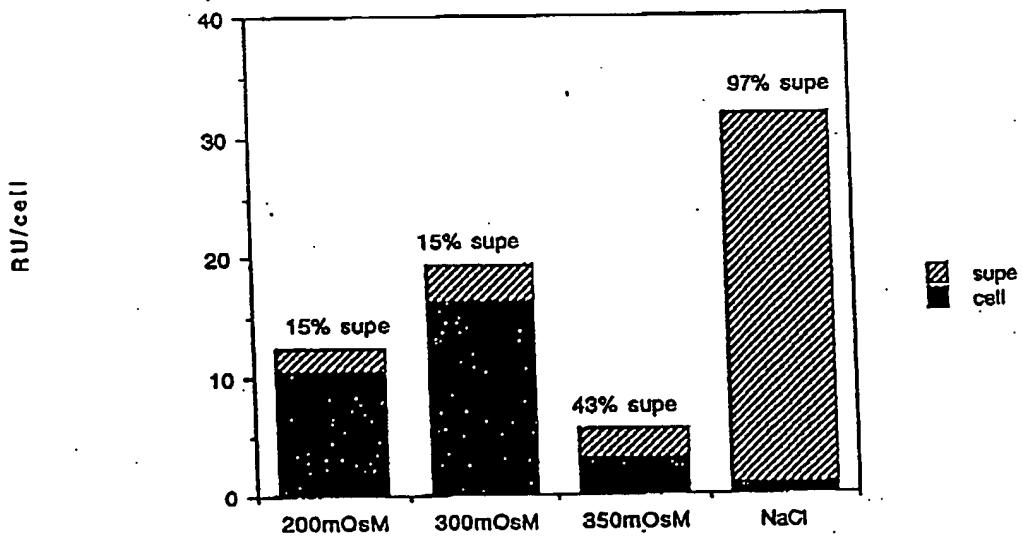
C

Bioreactor Osmolality Exp. (Sorbitol)
Day 2 RU/cell with Cell and Sup Distribution



D

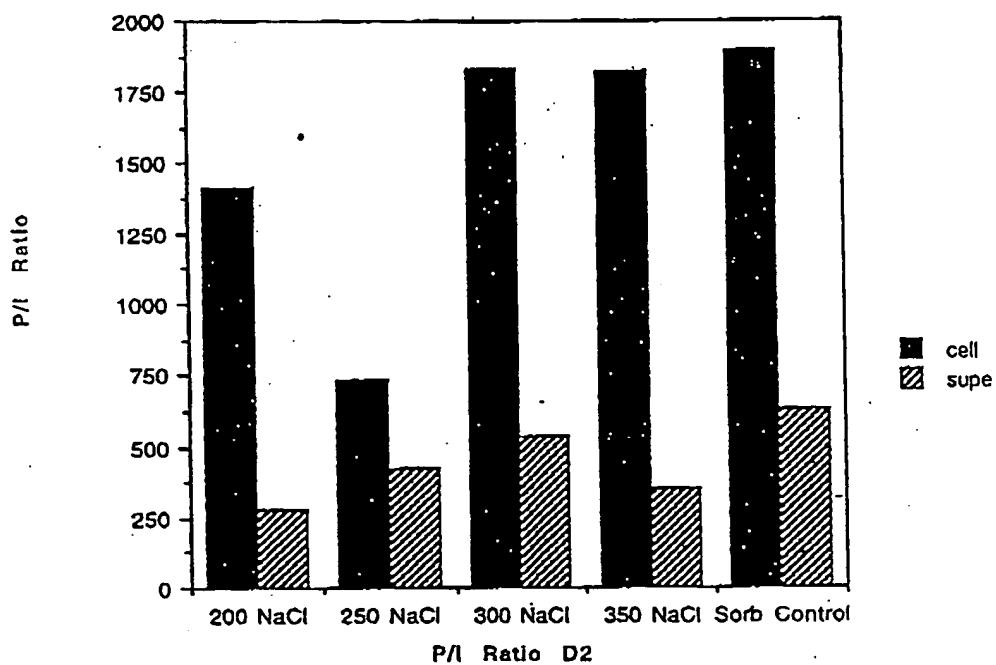
Bioreactor Osmolality Exp (Sorbitol)
Day 3 RU/cell with Cell and Supe Distribution



Figures 36C and 36D

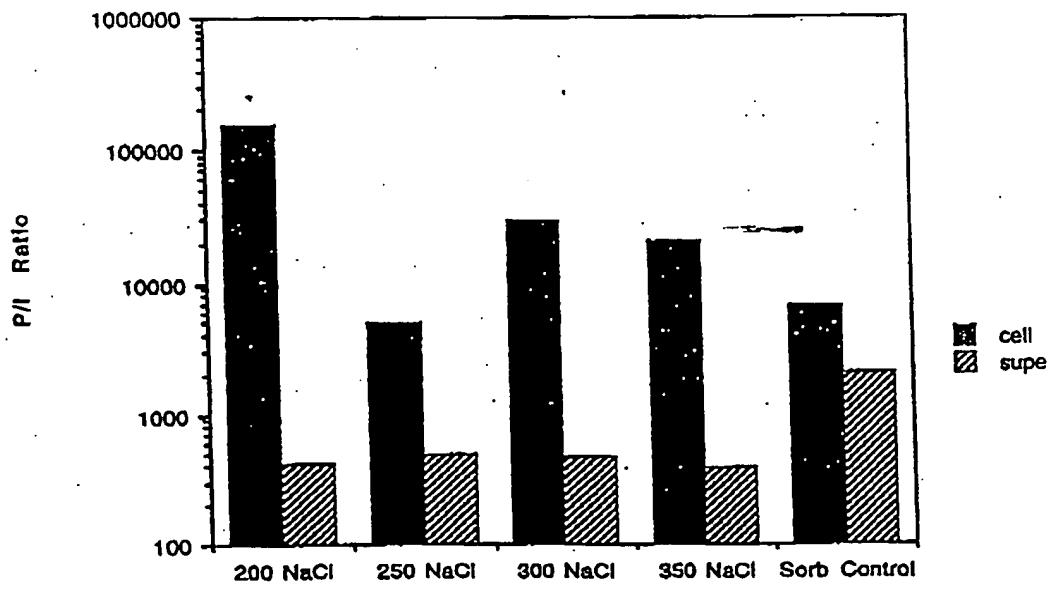
A

Bioreactor Osmiality Experiment (NaCl)
Day 2 Particle to Infectivity Ratio



B

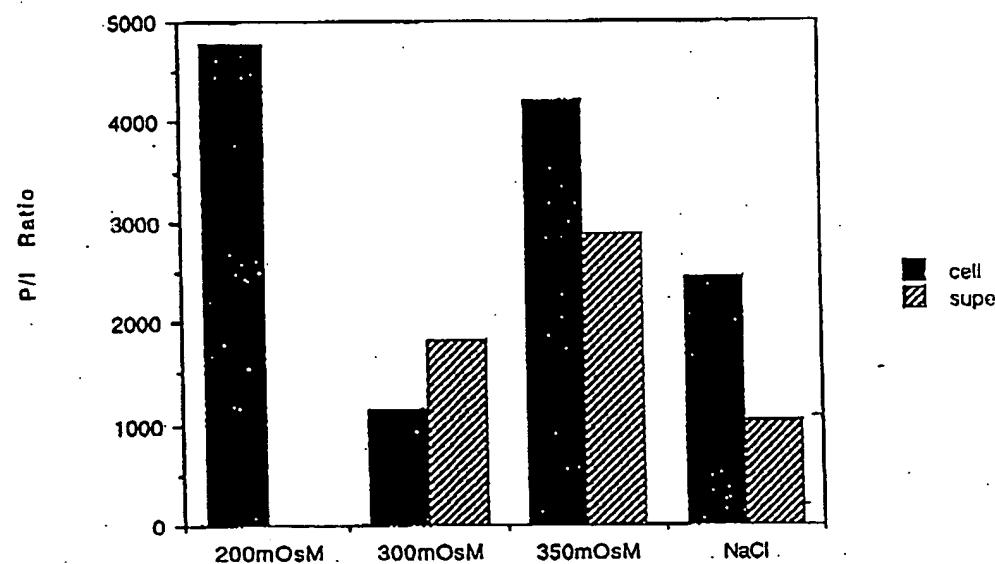
Bioreactor Osmiality Experiment (NaCl)
Day 3 Particle to Infectivity Ratios



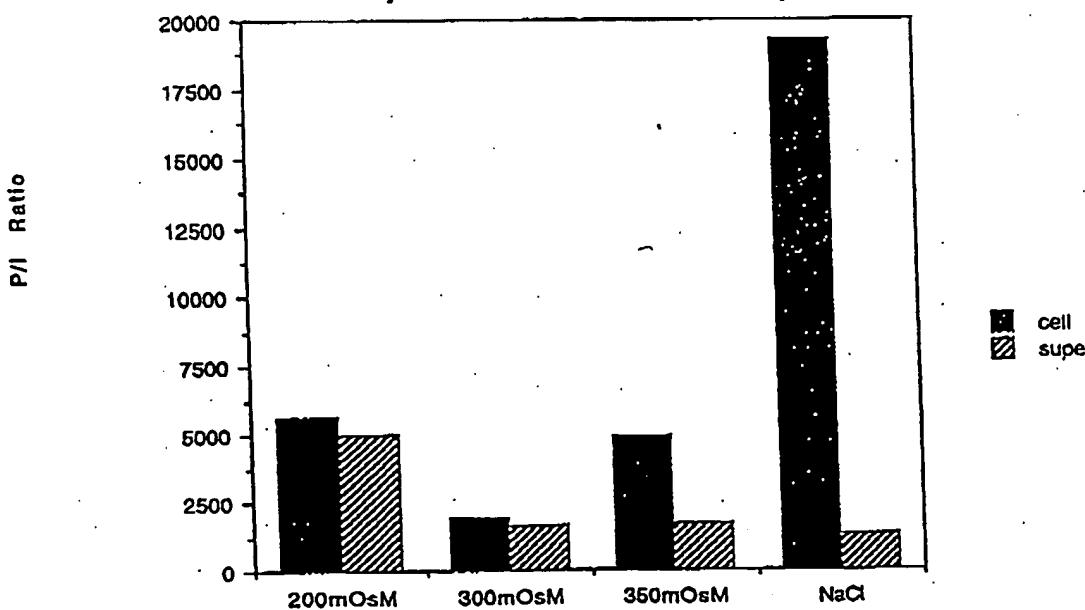
*Base dump between day 2 and day 3.

Figures 37A and 37B

C Bioreactor Osmolality Exp. (Sorbitol)
Day 2 Particle to Infectivity Ratio



D Bioreactor Osmolality Exp. (Sorbitol)
Day 3 Particle to Infectivity Ratio



Figures 37C and 37D